CHANGES AND VARIABILITY IN PERSONALITY CHARACTERISTICS AMONG FEMALE PRISON INMATES AS A FUNCTION OF LENGTH OF INCARCERATION AND RACE

By

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This study investigated personality change in incarcerated women as it related to the factors of length of incarceration and race. Subjects were first-time inmates at the Florida Correctional Institution, Lowell, Florida. Scores on the Minnesota Multiphasic Personality Inventory (MMPI) were used as a measure of personality characteristics. Pretest data were provided by the routine administration of the MMPI to all inmates upon admission to the institution. Posttest data were gathered by the investigator and compared with pretest data to examine personality changes and changes in group variability as a function of length of incarceration and of race. Results of an analysis of variance showed no personality change in the groups comprising the sample as a function of length of incarceration alone. Several differences in personality as a function of race were revealed on MMPI scales 1 (hypochondriasis), 6(paranoia), 7(psychastenia),

8(schizophrenia), 9(hypomania), and 10(social introversion). These results show that the black inmates in this study were more concerned with bodily functions, delusional, obsessive-compulsive, schizophrenic, overactive, and socially withdrawn than the white inmates.

Interaction effects of length of incarceration and race appeared on scales 4(psychopathic deviance) and 7(psychasthenia). These results indicate that the races are affected differentially by the experience of incarceration. A test of homogeneity of within group variance-covariance matrices revealed no changes in group variability. All inmates were shown to maintain the basic sociopathic elements of their personalities, as measured by MMPI scale 4(psychopathic deviance), throughout incarceration.

CHAPTER I
INTRODUCTION

> If you keep one (man) in penal servitude and another in the House of Lords for ten years, the one will show the stigmata of a typical convict, and the other of a typical peer (George Bernard Shaw, The Crime of Imprisonment).
>
> Prison is a very democratizing institution: soon the psychopaths talk like the lawyers, and the lawyers talk like the psychopaths (Anonymous).

Upon entering a correctional institution, inmates are stripped, searched, fingerprinted, bathed, and assigned a uniform and a number. Clothes, jewelry, and any other personal belongings in their possession are confiscated. They are separated from family and friends; they are deprived of status, individuality, privacy, and freedom. These deprivations have been referred to as the "pains of imprisonment" (Sykes, 1958).

The immediate reaction of the inmate is one of shock, disbelief, confusion, disorientation, and denial. Adjustment to this new environment is not easy, but, in time, most do adjust in one manner or another. To aid in this adjustment, and to ease the "pains of imprisonment," an informal organization is developed around a system of group norms, referred to as the inmate code. The code reflects inmate solidarity

an opposition to prison authorities and conventional values. The varying degrees to which inmates support the code constitute the inmate social system. Hawkins (1976) has remarked that despite the diversity in the inmate population, there is "only one strikingly pervasive value system": the inmate code.

Most inmates adjust to prison by the gradual adoption of the inmate code; this process has been called "prisonization" (Clemmer, 1958). The process entails changing habits of eating, sleeping, dressing, working, and language; acceptance of subordinate status; and learning that nothing is owed to the environment for the support it provides. Hawkins (1976) has stated that the process of prisonization is so disruptive to the long-term inmate's personality that adjustment to any other community becomes virtually impossible. Clemmer (1958) believes that the effects of prisonization on the personality function to create or increase criminality and sociopathy. Research on prisoners' personalities has shown them to resemble typical sociopathic patterns in their resentment of social demands, conflict with authority, feelings of isolation, emotional shallowness, lack of responsibility, inability to learn from past experiences, lack of gratification from social experiences, disregard for danger, etc. (Dahlstrom et al., 1972; Eysenck, 1964; Eysenck & Eysenck, 1973; Joestring et al., 1975; Panton, 1974).

Statement of the Problem

The purpose of the present study was to examine the effects of length of incarceration on personality, both of individual inmates and on the inmate community as a whole. As suggested above, length of incarceration appears to have some effect on personality. But, does it also function to reduce the variance in personality in the general inmate population by creating a typical or "modal personality" (DuBois, 1960) as several anthropologists have suggested regarding groups that are raised similarly and all treated alike? Specifically, the study attempted to answer the following questions: Would the personality characteristics of prison inmates change as a function of time served? More specifically, would personality characteristics distinguish newly admitted inmates from those who had served 3-6 months and/or from those who had served 9 months or more, and would there be differences among these groups? Would a "modal personality" develop as a function of time served? More specifically, would the variance of personality characteristics in a female inmate population diminish as a function of time served? Would race be a factor in personality change? In short, the present study examined whether the more time people were incarcerated, the more their personalities would resemble those of their fellow inmates.

Population

The sample of subjects used in this study consisted of 81 female inmates at the Florida Correctional Institution, Lowell, Florida. All subjects were serving their first state prison sentence, i.e. recidivists were not used as subjects in this study. Also excluded were inmates housed in "honor" facilities and those in disciplinary confinement. It was felt that the experiences of the latter inmates might have differed significantly from those of the general prison population.

Rationale

In theory, today's prisons are agents of rehabilitation. Yet the high recidivism and ever-rising crime rates in our cities indicate that the criminal justice system's attempts at rehabilitating public offenders may not have been effective. The experience of incarceration poses a profound threat to inmates' self-concepts and may even foster sociopathic tendencies. Several authors have commented that this is especially true for female inmates, yet little research has been published concerning women in prison.

The present study investigated the effects of incarceration on women, particularly its propensity to create, over time, a modal personality. Considering the amount of public funds allocated for the construction and maintenance of correctional institutions, research to explore the effects of these

institutions on their inmates, and consequently on society in general, is much needed. This study represents an attempt to meet this need.

Definition of Terms

Inmate - one of those confined in a prison.

Modal personality - central tendencies in the personalities of a group of people subject to common cultural pressures.

Newly admitted inmates - those inmates who have been incarcerated in the state prison less than five weeks, i.e. those inmates housed in "Reception and Orientation" at the time of this study.

Personality characteristics - those characteristics measured by the various scales of the MMPI.

Prisonization - the taking on in greater or less degree of the folkways, mores, customs, and general culture of the penitentiary (Clemmer, 1958).

Recidivism - repeated or habitual relapse into crime.

Recidivist - a repeat offender; one who has served two or more nonconcurrent sentences.

Sociopathic (or Psychopathic) personality - a mental disorder characterized by eccentricity; emotional instability; perversity of conduct; undue conceit and suspiciousness; or lack of common sense, social feeling, self-control, truthfulness, energy or persistence.

CHAPTER II
REVIEW OF THE LITERATURE

This chapter presents the literature related to the present study. First, an overview of the history of the criminal justice system and the concept of rehabilitation is presented. Next, the failure of rehabilitation is demonstrated by exploring the effects of the prison experience on inmates' self-concepts. The inmates' reactions to incarceration are discussed in terms of the "pains of imprisonment" they suffer and the ways in which they adapt to prison life. And finally, the impact of prison on the inmate population is examined as it functions to produce a so-called "modal personality," resembling the sociopathic personality.

The History of Punishment

Sutherland and Cressey have defined punishment as a method which ". . . involves pain or suffering produced by design and justified by some value that the suffering is assumed to have" (1970, p. 298), and which is ". . . inflicted by the group in its corporate capacity upon one who is regarded as a member of the same group" (1970, p. 298).

Historically, four types of punishment have been used in dealing with public offenders: 1) physical torture; 2) removal from the group by death, exile, or imprisonment;

3) social degradation; and 4) financial loss (Sutherland & Cressey, 1970). These methods are by no means mutually exclusive.

The first of these methods, physical torture, is demonstrated in the corporal punishment popular before 1800. This concept is based on the hedonistic philosophy that when the pleasure of committing socially undesirable acts is exceeded by the pain of the consequences, the undesirable acts will cease.

In the early nineteenth century there arose concern for the humane treatment of public offenders, and prisons were established as places of confinement and custody. In England, imprisonment was rarely used before the last part of the thirteenth century. The House of Corrections was established around the middle of the sixteenth century, and by the beginning of the nineteenth century, imprisonment had become the principal method of punishing serious offenders (Sutherland & Cressey, 1970).

In the United States today, public offenders are punished chiefly by the methods of imprisonment and financial loss. Social degradation is also included since, in most states, convicted felons lose their rights to vote, to hold public office, and to practice certain professions and occupations.

Punishment Versus Rehabilitation

Punishment as a method of dealing with public offenders has been justified as a means of atonement, deterrence, and retribution; as a producer of income for the state; and as a way of restoring or promoting the solidarity of the community (Sutherland & Cressey, 1970).

However, punishment has been ineffective in preventing the offender's return to crime, as well as in deterring others. In fact, punishment seems to strengthen the inclination toward crime since the resentment it engenders leads to a greater rigidity of response in the offender (Reid, 1976; Eysenck, 1964).

The concept of rehabilitating offenders arose out of the failure of punishment. Goffman (1966) defines rehabilitation as ". . . resetting the inmate's self-regulatory mechanisms so that after he leaves he will maintain the standards of the establishment of his own accord" (p. 65). The first official recognition of the desirability of rehabilitating prisoners came in 1773 when the English Parliament authorized magistrates to appoint chaplains in jails. Today, the attempt at rehabilitation is standard practice in our correctional facilities. Sutherland and Cressey (1970) state that ". . . the trend during the last century has been toward a societal reaction in which the criminal is treated rather than punished" (p. 347).

Despite this trend, today's prisons do not seem to be effective agents of rehabilitation. Hassler (1972) states that "The best of prisons does not reform or rehabilitate. It punishes, but punishment neither eradicates the original misdeed nor reforms the criminal. Neither does it serve as an effective deterrent, as is evident by the steadily rising rate of crime. It does not deter others from following a criminal career--for the simple reason that no man commits a crime expecting to be caught" (p. 196). It now appears that the new humane treatment of the twentieth century has been just as ineffective at solving the crime problem as the corporal punishment of the eighteenth.

The Failure of Rehabilitation

". . . the crimes that shock and terrify the law-abiding citizens are almost without exception crimes committed by graduates of our prisons, our jails, our parole systems" (Prisoner no. 4000X, 1972, p. 190). The preceding statement, made by a convicted felon serving his second term in a penal institution, indicates that these institutions do not serve as effective rehabilitation agents. The fact is that many, if not most, of the "graduates" of the present American penal system return to crime and, eventually, to prison. The high recidivism rates in our prisons, averaging 70%, reflect the failure of their attempts at rehabilitation (Levenson, 1975; Zimbardo, 1972).

When prison does cause permanent change in inmates, these changes are most often not in the intended direction (Goffman, 1966). The data from Persons' (1970) study of a boys' reformatory show that the reformatory, instead of initiating a rehabilitative process, actually increases psychopathology. Sutherland and Cressey (1970) have stated that the prison experience ". . . is conducive to the retention and development of criminal attitudes, rather than to reformation" (p. 546). Clemmer (1958) believes that prisons do "immeasurable harm" not only to their inmates, but to their employees, and that rehabilitation, when it does occasionally occur, occurs in spite of, rather than as a result of, the prison culture.

Petersen and Truzzi (1972) explain the penal system's lack of success as a rehabilitative agent in its failure to ". . . . promote the self-respect of the prisoner as a necessary condition for successful rehabilitation" (p. 187). The next several sections of this chapter explore the system's disregard for the importance of self-respect by examining the impact of incarceration on the inmate.

The Impact of Incarceration

Admission to a correctional institution is a shocking and traumatic experience for the new inmate. "The immediate and overwhelming impression of prison, and one that continued through my sentence and beyond, was the feeling of

humiliation. . . . Morethan anything else, I think, the convict is infuriated and discouraged by the planned indignities and degradation that are his lot from the moment he gets into the hands of the prison authorities" (Hassler, 1972, p. 194). Ward and Kassebaum (1965) describe the initial reaction to incarceration as an overwhelming feeling of confusion and insecurity with complete loss of perspective. The admission process has been described as a harsh, demoralizing, and depersonalizing experience (McCleery, 1966), and one that causes a serious disruption in the emotional stability of the inmate (Gill, 1952).

Reid (1976) states that the admission procedures, which include stripping of personal belongings, assignment of a number, examining, inspecting, weighing, and documenting, deprive the inmate of a sense of personal identity.

Gill (1952) studied in detail the impact of the first few months of incarceration on the inmate using the test-retest method with the Wechsler-Bellevue Intelligence Scale, the MMPI, the Rorschach, and the TAT. The pretests were given as soon as feasible after commitment; the posttests were given three months later. He found that depression-like symptoms appear immediately following commitment. These symptoms gradually diminish and are supplanted by feelings of dissatisfaction, boredom, and self-pity, which heighten tendencies toward an unwholesome mode of thinking.

Upon retest, he found a general reduction of self-confidence. The Rorschach scores suggested a general reduction of higher intellectual functioning and organizational ability, greater awareness of the obvious features of the environment, increased attention to relatively unimportant details, and a tendency toward a less mature mode of thinking. The MMPI retest revealed an elevation of all of the clinical scales. The depression scale (D) revealed the largest increment of increase, increasing significantly from insignificance to abnormal elevation. The schizophrenia scale (Sc) revealed the second largest increment of increase; the psychasthenia scale (Pt) the third; and the psychopathic deviate scale (Pd), which was the most elevated scale on both administrations, still revealed the fourth largest increment of increase. The hypomania scale (Ma) also became elevated; indicating a heightened interest in exciting, emotionally-laden situations. Gill remarked that the MMPI retest profiles were dominated by the psychotic scales--Pd, Pa (paranoia), Sc, and Ma--and noted the relatively unimportant position of the "neurotic triad"--Hs (hypochondriasis), Hy (hysteria), and Pt. Gill concluded that the first three months of imprisonment cause a significant shift in personality toward psychopathology.

The tendency is for new inmates to internalize the social rejection implicit in incarceration into self-rejection

and lowered self-esteem (Wheeler, 1961). They must reorganize their lifestyles, learn new ways of reacting to situations, and adopt new values and self-concepts (Gill, 1952). In short, they must "unlearn" former behavioral patterns and substitute new ones demanded by the institution.

Culbertson (1975) found that inmates at a boys' reformatory incarcerated for the first time showed a significant decline in self-concept during incarceration. While showing no significant changes during incarceration, self-concepts of boys with one previous incarceration were lower upon pretesting than "first-timers"; and those of boys with two or more previous incarcerations were lower still. Brown (1971) found that younger delinquent girls shifted to a distrustful and nondependent view of self after incarceration. Sykes' (1958) analysis revealed that the anonymity of a uniform and a number rather than a name, and the insistence on gestures of respect and subordination when addressing officials produce a constant threat to the inmate's self-concept.

Total institutions, defined as those which erect a barrier to social intercourse with those outside, eliminate the normal barriers which separate the three spheres of life: work, play, and sleep. All activities from all three spheres are conducted in the same place, under the same authority, with the same company of numerous others. Life

in these institutions is highly regimented; scheduled activities are imposed by the authorities and are designed to meet official institutional goals (Goffman, 1966). The total institutions being studied here, prisons, seem to have a profound impact on their inmates, particularly in the area of self-concept.

The Mortification of Self

Goffman (1966) has theorized on the damage done by total institutions to inmates' self-concepts. He has labelled the process by which this occurs "the mortification of self."

The process of mortification of self begins with role dispossession as individuals are separated from the outside world and must abandon their previous roles in terms of their families, jobs and education. Ties to these roles through correspondence and visits are closely supervised by institutional staff. This lack of privacy in interpersonal relationships with significant others adds to the mortification of self.

The second step in the process is encountered during admission procedures. These procedures involve the learning of deference obligations and the dispossession of personal property. The procedures involving the learning of deference obligations provide a sort of initial obedience test of whether or not the inmate is prepared to be "appropriately" deferential. Deference obligations include saying "sir" or

"ma'am" when addressing staff members, having to ask to go to the toilet or to smoke, and other demeaning rituals. The dispossession of personal property has long been noted by religious orders as aiding in the process of mortification of self. Goffman stresses its importance here "because persons invest self-feelings in their possessions" (1966, p. 26). Dispossession of property involves some damage to those self-feelings. This dispossession also includes the loss of one's name as it is replaced by a number. This may be the greatest loss.

The third step is personal defacement. Inmates are stripped of their usual appearance and of the equipment and services by which it is maintained. They suffer the anonymity of wearing the same uniform as all others around them. Inmates are then assigned to, and come to adopt, disidentifying roles. Labeling theory suggests that labeling someone, for example, a "criminal," will cause others to respond differently to that individual, leading the individual to respond in different ways, thereby creating a self-fulfilling prophecy (Reid, 1976). Zimbardo (1972) has stated with regard to prisons that merely assigning labels to people and placing them in a situation in which that label has validity and meaning is sufficient to elicit pathological behavior. The denial of heterosexual activity may induce inmates to question their masculinity or femininity and adopt the alien

role of "homosexual." The exclusion of inmates from knowledge of decisions regarding their fates is a denial of their command of self. They may come to question their status as "adult," i.e. having self-determination, autonomy, and freedom of action, and adopt the role of dependent child.

The process of mortification of self is complete. Goffman (1966) states that "Mortification or curtailment of the self is very likely to involve acute psychological stress for the individual" (p. 48). Yet it is only one of the pains of imprisonment.

The Pains of Imprisonment

Sykes (1958) created the term "pains of imprisonment" to describe the deprivations and frustrations of prison, including loss of liberty, deprivation of goods and services, and frustration of sexual desire. Sykes and Messinger (1960) list the five major deprivations as: 1) the rejected and subordinate status of inmate, 2) material deprivations, 3) sexual deprivation, 4) the constant social control imposed by the prison custodial staff, and 5) the constant presence of other offenders.

The subordinate status of the inmate has been discussed in the preceding sections covering the impact of incarceration and the mortification of self.

Material deprivations are felt although inmates' basic material needs are met. Needs are met for all inmates in the same way, with the same uninteresting food, the same anonymous clothing, and the same basic furniture. These items quickly become boring and lack the symbolic or sentimental value invested in personal possessions. Society equates material possessions with personal adequacy, their deprivation with inadequacy. "Now in modern Western culture, material possessions are so large a part of the individual's conception of himself that to be stripped of them is to be attacked at the deepest layers of personality" (Sykes, 1958, p. 69).

The deprivation of heterosexual activities causes severe psychological problems. Latent homosexual tendencies may surface, whether behaviorally expressed or not, arousing strong guilt feelings at a conscious or unconscious level. Anxiety over masculinity or femininity is generated whether the inmate is coerced, bribed, or seduced into homosexual activity (Sykes, 1958). Sexual identity is questioned and self-concept is threatened.

The constant social regulation by the prison staff is perceived and felt much differently than the social regulation by custom in the free world. The power is not freely given; it is total and imposed. Explanations of rules and regulations are often withheld from inmates, leaving them

confused. The rules and regulations are designed to control inmate behavior in minute detail, and frustrate inmates' decision-making abilities, leaving them feeling confused. This deprivation of autonomy and initiative threatens the inmates self-concpet as an adult (Reid, 1976; Sykes, 1958).

Imprisonment causes the inmate to be separated from family and friends. As time passes, the ties weaken and loneliness and boredom ensue. The inmate seeks to replace the lost emotional relationships with new ones. Yet the inmate is surrounded by other inmates, other "criminals." Deprivation of the sense of security that comes from living with people who can reasonably be expected to abide by the rules of society is felt as a result of prolonged intimacy with people who have a history of violent, aggressive, or exploitative behavior (Sykes, 1958). This deprivation of security is anxiety-provoking and causes inmates to question their ability to cope with violence, aggression, and exploitation.

All of these deprivations present an attack on the inmate's self-concept, and post a threat to the individual at a deep psychological level. The experience of incarceration in today's prisons may be just as painful as the physical maltreatment they replace. "Deprived of liberty, stripped of worldly possessions, denied access to heterosexual relationships, divested of autonomy, and compelled to associate

with other deviants, the inmates find that imprisonment still means punishment however much imprisonment may have softened in this modern era by an accent on humanitarianism and reform" (Sykes, 1958, p. 131). Inmates find they must somehow adapt to the institution to ease the pains of imprisonment.

Adaptation to Institutions

After enduring the process of mortification of self and suffering the "pains of imprisonment," inmates find they must reorganize their lives and adapt themselves to their institutions. In prison, this reorganization is based on adherence to rules, privileges, and punishment (Goffman, 1966). In adapting to prison, inmates become assimilated into the predominant culture. Assimilation is defined as ". . . a more or less unconscious process during which a person, or group of persons, learns enough of the culture of a social unit in which he is placed to make him characteristic of that unit" (Clemmer, 1958). The effect of the institution on its inmates depends on the degree to which they become assimilated. Since the "official" culture of total institutions is one which demeans and degrades the inmates, disrupts their personalities, threatens their self-concepts, and makes them weak and helpless, it would seem that assimilation into this culture would have personally devastating effects.

In reference to adaptation to total institutions, those which relieve their members of the burden of decision-making twenty-four hours a day, such as armies, orphanages, prison, and hospitals, Waller (1944) states that "All such institutions rob the individual of his sense of self-direction and ultimately damage the capacity for it. Virtue in such institutions consists in having no preference about many things; in eating whatever is put on the table, in wearing what one is told to wear, in making the best of things. The good institution member does not make choices or decisions. He submits and permits himself to be carried along, as it were, in a 'moral automobile.' When he returns to civilian life, his suddenly uncorseted soul seems flabby and incapable of standing alone" (p. 191). With regard to the particular total institution studied, the army, Waller goes on to say, "The regimentation of the lives of millions of men involves . . . some damage to their sense of self and to their power to think for themselves; it involves a redirection of their emotional life into channels acceptable to the military system. The solder must form a soldier's habit . . . learn to eat, sleep, dress, bathe--as a soldier, adjust his sex life to the soldier's necessities. Necessarily, he loses the sense of self-direction. A personality formed by such a milieu is thereby to some extent unfitted for civilian life" (p. 191).

Coser (1962) studied a similar phenomenon occuring in another total institution, the hospital. She states that as patients become increasingly assimilated into the hospital culture they begin to lose interest in people and activities on the outside. As the frequency in number of admissions increases, the patient's "hospital-orientation" increases, and "outside-orientation" decreases. "Patients who have been more frequently exposed to the hospital atmosphere are more likely to be hospital-oriented and to find in the hospital structure the sources of gratification of their passive needs" (p. 124). Time has a cumulative effect. The more patients look to the doctor or the hospital to gratify their needs, the less prepared they become to resume their lives outside.

Coser also notes that adaptation to the sick role of hospital patient has dysfunctional consequences. She reports that ". . . the patient during the whole length of his stay in the hospital is not expected to make his own rational choices. By the time he is discharged he may have 'unlearned' the making of choices" (p. 114). She adds that "The demands made on patients appear to be rationally ordered and logically consistent, but they entail a difficult psychological transition from one state to another . . . It is not always easy . . . for a person who has given up his substantial rationality in the hospital to recapture it when his health

is restored" (p. 114). She concludes that the patient who best adapts to the hospital culture may well be the one least prepared to return to the outside world because the passivity appropriate to hospitalization proves to be inappropriate for the successful readjustment to outside responsibilities. ". . . it seems likely that a person's ability to 'reorganize himself anew' may be weakened if he suffers long and frequent exposure to an environment which demand unquestioning and unreflective behavior" (Coser, 1962, p. 114).

These institutions are similar in many respects to prisons. It would seem that prisoners who adapt to the official culture would leave the institution ill-prepared to cope with life on the outside. But few, if any, prisoners completely adapt to the culture of the prison authorities. The majority create their own.

The Inmate Code

Despite the diversity of the prison population along other dimensions, Hawkins (1976) has noted that there is only one, strikingly pervasive, value system. It is a system of group norms, reflecting inmate solidarity in opposition to prison staff as well as to societal goals and values (Ward & Kassebaum, 1965; Hawkins, 1976). The solidarity provides a power base from which inmates can reject the society which rejected them, and its representatives, the

the prison staff (Wheeler, 1961). This system of group norms is generally referred to as the inmate code.

The inmate code consists of five major tenets: 1) an inmate should not interfere with the attempts of other inmates to serve the least amount of time possible with the greatest amount of pleasures and privileges; 2) an inmate should not argue or quarrel with fellow inmates; 3) an inmate should not take advantage of other inmates by means of force, fraud, or chicanery; 4) an inmate should be tough, maintain self, and not "cop out"; and 5) an inmate should not respect the staff nor value the society for which they stand (Sutherland & Cressey, 1970).

Imprisonment represents a social and moral rejection of some individuals by the free community. This poses a threat to prisoners' egos, and they find that to endure psychologically they must reject their rejectors (Sykes, 1958). Through the inmate code, prisoners are able to reject society, its values, and its power, rather than themselves (Wheeler, 1961). It provides a means to the status denied by society (Reid, 1976).

Adjustment to prison life entails suffering systematic deprivations: of material comforts and personal belongings, of personal freedom, and of family and friends (Ward, 1965). The inmate code develops in response to these deprivations (McCleery, 1966; Sutherland & Cressey, 1970; Sykes, 1958).

One solution to the problem of deprivation is what Goffman (1966) has referred to as "secondary adjustments"--practices that do not directly challenge staff, but allow inmates to obtain forbidden satisfactions or to obtain permitted ones by forbidden means. Secondary adjustments give inmates the feeling of having some measure of control over their environment. The inmate code provides the means of social control to prevent an inmate from informing the prison staff about the secondary adjustments of others (Goffman, 1966).

The norms of the inmate code are directly related to mitigating the "pains of imprisonment" in an environment where the staff has almost total power (Ward, 1965). Inmates must find a way to respond and adapt to the harsh social conditions of prison life. They must rebuild the self-esteem destroyed by the demeaning and degrading procedures which have relegated them to a subordinate status. They must reconstruct their self-concepts, damaged by the depersonalizing process of mortification of self. The inmate code arises to meet these needs (Sykes & Messinger, 1960).

Mitigating the Pains of Imprisonment

Sykes (1958) cites solutions to the "pains of imprisonment" which rarely or never occur: physical escape, escape into fantasy (psychosis), change by physical force (riot), and change by persuasion. Instead, inmates seek to alleviate these pains by means of a unifying process ". . . through

which socially distant persons find themselves developing mutual support and common counter-mores in opposition to a system that has forced them into intimacy and into a single, equalitarian, community of fate" (Goffman, 1966, p. 54). The inmate code, and adherence to it, may be seen as a logical consequence of confronting similarly situated individuals with a set of common problems (Thomas & Foster, 1972).

The value of solidarity has been noted by Sykes (1958): ". . . the greater the extent of 'cohesive' responses--the greater the degree to which the society of captives moves in the direction of inmate solidarity--the greater is the likelihood that the pains of imprisonment will be rendered less severe for the inmate population as a whole" (p. 107). Cohesion encourages sharing, insuring that scarce goods will be distributed more equitably, and in so doing, responds to the problem of material deprivation. Cohesion helps solve the problem of the deprivation of personal security. And, finally, cohesion provides a meaningful social group through which the inmate can achieve the status not attainable through other channels (Sykes, 1958). "When two or more persons perceive that they share a common motivation or problem of action, a basis for meaningful interaction has been established, and from this interaction can emerge the social positions, roles, and norms which comprise social organization" (Garrity, 1966, p. 372).

Development of the Inmate Social System

The varying degrees to which inmates support the inmate code constitute the inmate social system (Ward, 1965). The system, therefore, can be described in terms of certain behavior patterns, or roles. The roles may be ordered along a prosocial to antisocial continuum, reflecting the degree of support for the inmate code. The greater the acceptance of the norms of the inmate culture, i.e. the inmate code, the more antisocial the role adaptation; the more antisocial the role adaptation, the greater the support for the inmate code (Thomas & Foster, 1972). The inmate social system is dominated by antisocially oriented individuals (Garrity, 1966), and will continue to be dominated by those most hostile to the official prison system so long as the official system fails to reduce the "pains of imprisonment" (Wheeler, 1966).

As the inmate code determines the socialization characteristics of the inmate culture, these characteristics also determine, in part, the content of the inmate code. In addition, the content of the code is determined by the broad commonalities among the preprison experiences of the inmates (Thomas & Foster, 1972). Wheeler (1961) provides two complementary explanations of the normative content of the inmate culture. One is its problem-solving nature, discussed earlier as a response to the frustrations, deprivations, and

adjustment problems of imprisonment. The other explanation is "negative selection": ". . . the single trait held in common by all inmates is participation in criminal activity. Their criminal acts indicate in varying degrees an opposition to conventional norms. It follows that the inmate culture should give expression to the values of those who are most committed to a criminal value system--the long-termers, those who have followed systematic criminal careers, etc." (Wheeler, 1961, p. 708). The inmate code is a reflection of a more general criminal code, imported to prison by career criminals and adopted by others (Sutherland & Cressey, 1970). The norms value criminal behavior, and the inmate social system is consistent with that of the criminal subculture (Garrity, 1966). It follows that ". . . those inmates who have thoroughly internalized a criminal value system probably benefit most from an inmate culture based on antipathy toward the staff" (Wheeler, 1966, p. 257).

The inmates who assume positions of power and influence in the inmate social system are those most prepared for those positions by past experience. They are those with the most experience in exploitation and manipulation prior to incarceration (Wheeler, 1966). They are the career criminals and those who have committed the more serious offenses, therefore, the long-termers. This being the case, the status hierarchy in the inmate culture resembles a seniority system (McCleery, 1966).

Conformity to the Inmate Culture

It is the long-termers, the more serious criminals, who hold positions of power in the inmate culture, and the new inmates must depend on them to meet their needs not met by the official system. "The absence of official orientation or published regulations, the secrecy and arbitrariness of discipline, the shocking unfamiliarity of prison life and the demands imposed by regimentation combined to make the new inmate helplessly dependent on experienced men" (McCleery, 1966, p. 165). Senior inmates also have the knowledge of secondary adjustments and the techniques for attaining them. They hold the physical goods and know the ways to make prison life tolerable, and can share them on their own terms. "This control over the rites and tests of initiation gave senior inmates the power to assign new men a subordinate status and hold them there until they accepted the norms of inmate culture (McCleery, 1966, p. 165).

In the process of adjustment to prison, most prisoners find they must adhere to, or at least be accepted by, the inmate culture (Sutherland & Cressey, 1970). "The inmate who values friendship among his peers and also desires to conform to the staff's norms faces a vivid and real role conflict. The conflict is not apparent or perhaps is not felt so intensely during the earliest stages of confinement, but with increasing length of time in the prison the strain

becomes more acute; inmates move to resolve the strain either by giving up or being excluded from primary ties, or by shift in attitudes" (Wheeler, 1961, p. 704). Since inmates perceive the attitudes of other inmates to be more opposed to the staff than they actually are, probably due to the vocal minority of powerful senior inmates, inmates who initially conform to staff norms do not even attempt to seek out like-minded individuals (Wheeler, 1961). By the time they reach the crisis in role conflict cited by Wheeler above, they perceive their choice as alliance wih the non-conforming inmate culture, involving an attitude change, or social isolation. "The dominant tendency is to move in the direction of non-conformity rather than isolation" (Wheeler, 1961, p. 704). In addition, Sutherland & Cressey (1970) note that "In a system of friendships, mutual obligations, statuses, reciprocal relations, loyalties, intimidation, deception, and violence, inmates learn that conformity to prisoner expectations is just as important to their welfare as is conformity to the formal controls extended by 'outsiders.' Powerful prisoners insist that inmates be orthodox in their statements and actions. And orthodoxy is more important in prison than in outside life, because in outside life a person has freedom of mobility not possible in prisons" (p. 532).

Primary Group Affiliation

Clemmer (1958) stated that ". . . it is through the influence of relationships in groups that individuals become persons. What we call personality is, in a large part, group bred" (p. 112). The most influential groups in the molding of human nature are the so-called "primary groups." Cooley (1909) defines primary groups as those ". . . characterized by intimate face-to-face association and co-operation. They are primary in several senses, but chiefly that they are fundamental in forming the social nature and ideals of the individual. The result of intimate association, psychologically, is a certain fusion of individualities into a common whole, so that one's very self, for many purposes at least, is the common life and purpose of the group" (p. 23).

Clemmer (1958) noted that inmates form intimate social relationships, comparable to the relationships within a primary group in free society, based on like experiences, stigmatization, and sharing a subservient position. He empirically constructed the concept of the "prison primary group," which he defines as ". . . a collectivity of prisoners who possess a common body of knowledge and interest sufficient to produce an understanding and solidarity which is characterized by a we-feeling, sentimental attachment, and unanimity, and which allows, at the same time, elements of competition and resistance among members only to the

extent that cohesion is not disrupted" (p. 115). In his study of prisoners, 17 percent were considered members of prison primary groups, 40 percent were considered members of semi-primary groups (the same as primary groups except that members expected the bonds to weaken after release from prison, particularly with regard to willingness to protect and defend other members), and 41 percent were considered ungrouped in the primary sense. Clemmer found that his subjects who were members of prison primary groups were younger, had a higher intellectual capacity, and were more likely to have always been single, than his subjects who were ungrouped. Also, those who had committed serious or very serious crimes were much more likely to become members of prison primary groups than those who had committed trivial offenses when the seriousness of the crime is determined by the amount of criminal experience of the individual, evaluation of criminal technique, dangerousness to society, harmfulness of the offense to the life adjustment of the offender, and the psycho-social ramifications of the crime on the family and friends of the offender. Increasing length of incarceration has a negative effect on the likelihood of prison primary group affiliation. Ungrouped men are more likely to have strong ties with family and friends in the free world (primary groups), to be asocial, or to be rejected by all prison groups. Referring to the effects of

prison primary group affiliation, Clemmer (1958) states that "The interaction in and about these groups, and the social life that exists is part of the 'unseen environment' and has much greater influence on individual personalities, we are inclined to believe, than all the rules, official admonishments, sermons, or other factors intended to guide lives" (p. 295).

In summary, prolonged contact with the inmate culture and group affiliation may effect personality change in prisoners, usually toward the antisocial or criminal end of the spectrum and away from the prosocial end intended by prison administrations. As inmates come to oppose the official prison organization and value their interpersonal relationships with one another, inmate solidarity increases, and the likelihood of the prison acting as an effective agent of rehabilitation decreases.

Women in Prison

The vast majority of prison literature is concerned with males. Since this study concerns women, the following several sections contain a review of the research on the experience of women in prison.

Women are significantly less likely to be arrested, tried, convicted, and sentenced to prison than are men. This has been explained, at least in part, by Western culture's protective attitude toward women and society's

reluctance to submit them to procedures deemed appropriate for men (Ward & Kassebaum, 1964, 1965). Wheeler (1975) states that society is more tolerant of deviant behavior for a longer period of time from women than from men before incarcerating them. If a woman is convicted of a crime such as murder, she will probably be sent to prison, but other offenses generally must be committed repeatedly before imprisonment results.

The above statement would indicate that the populations of women's prisons are composed of more serious and/or habitual offenders than are the populations of men's prisons. However, Ward and Kassebaum (1964, 1965) found that women prisoners generally have less extensive criminal experience and less often have long histories of incarceration, including training schools and reformatories, than their male counterparts. This may be partially explained by society's reluctance to convict and incarcerate females.

Statistically, women tend to be arrested and incarcerated at an older age than men although there is a recent trend toward incarcerating younger women (Hannum et al., 1973). Ward and Kassebaum (1965) report that higher proportions of women are imprisoned for murder, forgery, and bad checks, while higher proportions of men are imprisoned for burglary, robbery, and sex offenses. Commitments for narcotics sales and possessions are of approximately equal proportions.

The Impact of Incarceration on Women

Because of society's protective attitudes, the impact of incarceration seems more severe for women than for men because it is more unusual. Ward and Kassebaum (1965) state that "a consequence of this protection is that women are less likely to be prepared to cope with the abrupt loss of emotional support and guidance formerly provided by parent, brother, husband, or boyfriend. Also, in a male dominated economic world, many women obtain rewards or security by manipulating a man to provide them. Penal confinement puts women entirely on their own without the complementary male roles with which they are actually or symbolically aligned in the outside world" (p. 14). In describing the reaction of women to incarceration, they note that "many of them have played the generally dependent role characteristic of women in our society and the removal of emotional support which has been provided by parents, husbands or lovers is a shattering experience" (1964, p. 162). This "pain of imprisonment," the lack of heterosexual relationships, seems to be more serious for women than for men, because women are faced not only with physical frustration, but also "the female prisoner finds herself cut off from the structure of American society conducive to the cultivation of a female role, from the avenue through which she achieves self-respect and status" (Giallombardo, 1966b, p. 99).

The deprivations or "pains of imprisonment" noted earlier by Sykes for male prisoners apply to females as well. Giallombardo (1966a) describes the pains of imprisonment for women as ". . . the abrupt termination of the individual's freedom; the lack of opportunity for heterosexual relations--the fracturing of every influence favorable to the cultivation of emotional reciprocity as a result of being cut off from family and friends; withholding of material goods; attacks on the self through the humiliating experience incidental to a prison commitment; the loss of autonomy and responsibility to which life in a prison inevitably leads; and the lack of security, and privacy" (p. 273). Ward and Kassebaum (1964) include in their list the lack of information, support, and guidance from the institution; the limitations on freedom of choice; the stigma resulting from the process of status degradation; the insecurity and anxiety resulting from indeterminate sentencing laws; and the lack of experience in being incarcerated.

The physical surroundings of women's prisons are generally more pleasant than men's, and there is somewhat more opportunity for individuality as women are permitted a greater number and variety of personal items such as clothing and jewelry. There is also a greater variety of canteen items including not only food but make-up and toiletries. But although the complete deprivation of personal possessions

found in men's prisons is not the case for women, Giallombardo (1966 a & b) reports that mortification of self through the attack on a woman's self-image with reference to clothing is particularly acute because of the relatively higher importance assigned to fashion by women.

Existence in a women's prison is highly structured and regulated, depriving the inmates of freedom and autonomy through such means as exaggerated standards of neatness and cleanliness and the total imposition of a multiplicity of rules to control behavior. This restriction on the inmate's ability to make choices reduces her to the status of child-like dependency (Giallombardo, 1966b; Gibson, 1976). Comparing women's institutions to men's, Gibson (1976) remarks that ". . . the reduction of women to a weak, dependent, and helpless status is brought about by more subtle means than by the gun or the high wall" (p. 99). Although the means may differ somewhat, women experience the same "role dispossession by mortification" and the accompanying status degradation, and the same "deference" or "obedience test" aspects of initiation as men (Heffernan, 1972).

Gibson (1976) found that despite the outward appearance of the attractive facilities and peaceful surroundings of women's prisons, the atmosphere inside is very tense and oppressive. There is less danger of being physically attacked or sexually assaulted by other prisoners than there is for

men, and little danger of physical maltreatment by the matrons (Ward & Kassebaum, 1965). However, "You can't trust another woman" is a powerful social tenet with which most women are raised, and which remains in force throughout incarceration. Giallombardo (1966a) summarizes, "Hence, it is not so much the constant fear of violence or sexual exploitation such as is the case for the male prisoner which creates a hardship for the female inmates, but, rather, the strain involved in being in the forced company of women who are believed to be untrustworthy, capable of predatory tactics" (p. 274).

The Incarcerated Mother

While the deprivations of material goods and security may be somewhat less acute for women than for men, "the dispossession of the familial roles of wife and mother and the separation from family are more severe" (Ward & Kassebaum, 1965, p. 28). The incarcerated father knows that even though his family feels his loss as breadwinner, his wife can still care for the children. But when it is the mother who is imprisoned, she loses her ability to fill what society deems her most important role. If she is married, she must ask her husband to assume responsibility for the care and upbringing of the children in addition to his primary role as breadwinner (Ward & Kassebaum, 1964, 1965).

The incarcerated mother is concerned not only with her own feelings about being separated from her children, but also with provisions for their caretaking and the effect the separation may have on them. She worries about the quality of care her children receive, and that they may be shuttled from one caretaker to another. Caretakers may not bring the children to visit, and if they do, the circumstances of the visit are often frightening to the children. Children may not understand what has happened and often feel rejected. They may be teased or shunned by their peers. Custody may be in question and there is often no legal authority to enroll them in school or obtain medical care (McGowan & Blumenthal, 1976).

If children are left with the father, he may experience the role conflict cited above and look for another female to assume the maternal role, or custody may be taken from him and assigned to other relatives. If the father is not present, or adjudged not responsible, the children may become wards of the state (Ward & Kassebaum, 1964, 1965). Sixty-eight percent of the women in the prison studied by Ward and Kassebaum (1965) were mothers; they found that the impact on women of separation from their families does not lessen appreciably over the period of incarceration.

Homosexuality and Play Families

As is true for men, women in prison search for ways to mitigate the pains of imprisonment and thereby adapt to the

institution. Ward and Kassebaum (1964, 1965) found that women are less likely than men to actively rebel in prison or to develop elaborate operations for obtaining and distributing contraband. Instead, the main methods of adaptation for women are psychological withdrawal, chronic fighting and other rule violations, institutionalization or the acceptance of prison life as a satisfying experience, and homosexuality. Homosexuality is by far the most frequently chosen alternative. Commenting on this compensation for the pains of imprisonment, the authors state, "Emotional deprivation and lack of experience in fending for oneself combine in the women's prison to promote one predominant compensatory response, that of homosexual involvement" (1964, p. 166). Brodsky (1975b) adds that "The sources of opportunity for future jobs, living arrangements, child care, and communication with the family become less likely and less realistic as the inmate is further detached from the community to which she will eventually return" (p. 103). This weakening of family ties leads to much situational anxiety and homosexuality.

The absence of men forces women to attach new meanings to homosexual behavior in prison (Giallombardo, 1966b). Homosexuality functions to resist depersonalization and to compensate for the mortification of self. It makes the inmate feel she is worth something because someone pays

attention to her and cares about her. In addition, in prison, the homosexual relationship is the medium of exchange (Ward & Kassebaum, 1965).

Roles which approximate the family unit develop around homosexual relationships (Giallombardo, 1966a). These marriages and other kinship ties form a meaningful system in an attempt to create a substitute society within prison walls. These "play families" openly involve homosexual alliances, although physical sex is more discreet. They provide a solution for affective needs as well as an economic structure. Heffernan (1972) explains, "The development of family units informally provides a rationale for a multiplicity of close relationships to relieve the tensions of prison life as well as legitimating dependency and dominance roles that would not be appropriate in other areas of staff and inmate interaction" (p. 88). This kinship structure binds inmates together into a cohesive system. For the new inmate, this system provides a means of learning to adapt to prison life, as it is one of the most important duties of "parents" to socialize "children" to the role of inmate. The system also functions to attempt to resist the destructive effects of imprisonment by enabling the inmate to maintain an identity relevant to outside life (Giallombardo, 1966b).

Male and Female Inmate Social Systems

The pains of imprisonment account for the existence of inmate social systems for both men and women, but the forms these systems take differ based on pre-prison experiences, cultural background, and social roles. The inmate social systems in women's prisons lack the sharply differentiated role types found in men's prisons, and exhibit a lower degree of cohesion or solidarity. The strong social solidarity based on automatic adherence to a set of norms which is found in men's prisons is replaced in women's prisons by a "calculated solidarity" which exists situationally based on its perceived benefit to individual interests (Giallombardo, 1966a). Giallombardo (1966a) lists four major reasons for the different content of male and female inmate social systems: 1) different orientation of life goals, 2) differences in passivity and agression, 3) social acceptability of demonstrations of affection toward a member of the same sex, and 4) cultural lore regarding members of the same sex, e.g., "You can't trust another woman."

The tenets of the inmate code carry less weight in female inmate cultures than in males. Ward and Kassebaum (1964, 1965) provide two main explanations why this is so. First, the conditions of imprisonment are less severe for women and fewer of them are "con-wise," indicating less of a need for the unwavering solidarity implied by the code and

less of the pre-prison background involved in its development. Second, the code, as it exists in male institutions, reflects more typically male needs, such as for status, independence, autonomy, and a masculine self-image. While adherence to the traditional male inmate code is lower among female inmates, it is nonetheless present. Heffernan (1972) found a "striking uniformity" in the norms of a female prison population reflecting behavioral prescriptions for doing time. Individual adherence to the code was high and its acceptance considered necessary for "doing time well," although in practice violations were frequent.

The inmate code exists in women's prisons as well as in men's, and arises from similar sources. Heffernan (1972) states, "The exigencies of pattern maintenance and integration within the system require the development and acceptance of a set of norms and values particularly adaptive to the status changes and controls that imprisonment brings. These codes of behavior function both to help the individual prisoner do 'easy time' and to support the inmate economic, affective, power, and status systems" (p. 108). These systems represent an attempt to mitigate the pains of imprisonment and the mortification of self inherent in prison life. Involvement in the inmate culture enables the inmate to regain what the prison structure has taken from her. This is not, however, a simple substitution process of one

culture for another. Rather, the substitution of the inmate culture for that of free society involves a ". . . fundamental modification of societal values and norms, involving views of authority, concepts of interpersonal relations (particularly in sexual and familial areas), recognition of certain property rights, and generally accepted bases of role evaluation" (Heffernan, 1972, p. 164). For this reason, if no other, adaptation to prison is antithetical to rehabilitation. Brodsky (1975b) indicates that this adaptation is desirable only for those who never again must function outside the institution.

The Process of Prisonization

Clemmer (1958) originated the term "prisonization" to mean "the taking on in greater or less degree of the folkways, mores, customs, and general culture of the penitentiary" (p. 299). It implies a high value on ingroup loyalty, opposition to the official prison system, and increased criminal identification due to the basically criminal character of the inmate culture (Thomas & Foster, 1972). Garrity (1966) notes: "Prisonization can vary from simply learning compliant role behavior to internalization of the role behavior and a changed self-conception" (p. 374). It is a specific example of the more general process of assimilation that occurs whenever a person is introduced into an unfamiliar culture (Wheeler, 1961).

The process of prisonization begins when new inmates must learn about and comply with the formal prison organization. In this stage, inmates retain most of their pre-prison attitudes and behaviors, but adapt their personal habits to fit the regimentation of prison life. Gradually, they are affected by more pervasive influences. They become accustomed to being known by a number rather than a name and wearing the same clothing as the others around them. The inmate becomes an anonymous figure in a subordinate group and suffers the corresponding status degradation.

Eventually, new inmates find that it is the prisoners who control the quality of prison life, not the administrators. New inmates learn and begin to use the slang or argot which has developed among prisoners as a distinguishing symbol. They come to assign new meaning to the conditions of life, and there is security in this realization that nothing is owed to the environment for the supplying of needs: food clothing, shelter, work, entertainment, recreation, and education. This slight change in attitude is fundamental to the process of prisonization (Clemmer, 1958).

The final step in the process comes with the development of new habits, behaviors, and attitudes. Prisoners learn to gamble, engage in homosexual activities, and to hate and distrust the prison staff. They accept the inmate code and attempt to enforce it (Clemmer, 1958; Sutherland & Cressey,

1970). In summary, prisonization occurs when the inmate has been stripped of symbols of personal identity and begins to attach new meanings, supplied by the inmate culture, to the conditions of life (Garrity, 1966).

Prisonization implies an assimilation into both the social role continuum which constitutes the inmate social system and the normative content of the inmate culture. "Prisonization, the process of assimilation into this contraculture, is defined by both movements into one of a set of inmate social roles and some degree of commitment to the normative prescriptions and proscriptions of the contraculture. Social role adaptations and normative assimilation are in turn viewed as related to the development of attitudes which oppose the prison organization, and placement of a high priority on interpersonal relationships with other inmates, and criminal identification (Thomas & Foster, 1972, p. 234).

Two Models of Prisonization

Thomas and Foster (1972) present two models of prisonization: deprivation and importation. The models of the process of prisonization occurring within the individual are analogous to the models of the development of the inmate social system within the entire prison population. The deprivation model sees prisonization as an adaptive process which attempts to mitigate the "pains of imprisonment." The

emphasis is on coping with the problems generated by the immediate situation in which inmates find themselves, imprisonment. The importation model emphasizes that assimilation into inmate culture is influenced by factors external to the immediate situation in which inmates find themselves. The content of the inmate culture is based on the pre-prison experiences of most inmates in the lower-class subculture, the criminal subculture, and the subculture of violence (Thomas & Foster, 1972). Assimilation into this culture is influenced by external factors such as quality of contacts with the outside world and expectations inmates have of their life-chances after release (Thomas & Foster, 1972). As with the development of the inmate social system, these two models of prisonization are complementary. The deprivation model defines the need for an adaptive process to resolve the problems of incarceration while the importation model defines the content of the adaptation in terms of inmates' pre-prison experiences.

Clemmer's (1958) data indicate that the socialization process occurring in prison is one of prisonization, the progressive adherence to the inmate code and opposition to staff expectations. Wheeler (1961) got somewhat different results. He found that the predominant socialization process operating was dependent upon institutional career phase. Inmates' career phase is determined to be early, middle, or

late depending on how much time they have served compared with the total amount of time they expect to serve, i.e. incoming inmates are considered in early phase, inmates close to release in late phase, and others somewhere in the middle. By examining conformity to staff expectations, Wheeler found a steady increase in the proportion of low conformity responses, as would be expected from the prisonization model. But he also found a U-shaped distribution of high conformity responses, indicating another process of differential attachment to societal values based on career phase. He hypothesized that the changes from early to middle phase are a reaction to events within the prison, while the changes from middle to late phase reflect anticipations of dealing with the outside world. Garabedian (1963) termed this second process "adaptation," when inmates in early and late phases conform to staff values and those in middle phase deviate. Prison may be seen to impact differently on different inmates, and the operative pattern of socialization, prisonization or adaptation, seems to depend on the inmate's social role within the prison (Garabedian, 1963).

Factors Minimizing or Maximizing Prisonization

Clemmer (1958) states that every inmate is prisonized to some extent, and that more inmates approach the complete degree than the least degree of prisonization. There are

several factors which appear to maximize or minimize prisonization. Clemmer (1958) found that complete prisonization depends on personality of the inmate, the type and quality of relationships with people in the free world, affiliation with prison primary or semi-primary groups, chance (through placement in a certain cellblock or job assignment), and the degree of acceptance of the inmate code. Faine (1973) found that the self-concepts which inmates bring to the prison determine both the likelihood and the direction of attitude change which will occur. For those with deviant "social anchorage," prisonization increased in linear fashion through successive career phases. Those with low "social anchorage" increased in prisonization during the middle phase and decreased during the late phase. Those with legitimate "social anchorage" showed no changes.

Clemmer (1958) stated that prisonization is directly related to time served. Garrity (1966) agreed, stating that a long sentence maximizes prisonization through a longer subjection to the "universal factor of prisonization," to be discussed later. Thomas and Foster (1972) found that Prolonged interaction within the inmate society will result in increased assimilation or prisonization" (p. 232). Wheeler (1961) said that the degree of prisonization is dependent on the degree of involvement in the inmate culture. He found that initially there is no significant relationship

between involvement in the inmate culture and conformity to staff values. But for inmates who become highly involved, the percentage of high conformists drops off rapidly. The process of prisonization is dependent on the socialization of new inmates by old ones in the propagation of the inmate code and social system (Reid, 1976). Wheeler (1961) found that the speed and degree of prisonization are minimized for those inmates who had positive pre-prison relationships, those who have short sentences, those who do not affiliate with prison primary groups, and those who are by chance placed with inmates not integrated into the inmate culture.

Thomas and Foster (1972) stated that prisonization has negative consequences both for the prison organization and for the long-term life-chances for the inmate. Wheeler (1961) found that prisonization affects inmates' self-concepts as they come to adopt the inmate code, reject society, and accept a conception of self as a criminal. The degree of prisonization is the most important factor in post-release adjustment. It is the central impact of the prison on its inmates; the impact of an inmate society with a view of the prison and the outside world which is distinctly harmful to rehabilitation (Wheeler, 1961).

The Universal Factors of Prisonization

Clemmer (1958) has cited several factors, applicable to all prisoners, which cause, increase the degree of, and

hasten the process of prisonization. He has termed them the "universal factors of prisonization." These factors include acceptance of an inferior status; accumulation of facts concerning the organization of the prison; the development of somewhat new habits of eating, dressing, working, and sleeping; the adoption of local language; the recognition that nothing is owed to the environment for the supplying of needs; and the eventual desire for a good job within the prison. No inmate can remain completely unprisonized because incarceration necessarily includes subjection to these universal factors of imprisonment (Wheeler, 1961). The longer this subjection continues, i.e. the longer the period of incarceration, the greater the degree of prisonization (Clemmer, 1958).

Referring to the universal factors of prisonization, Clemmer (1958) said: "It is not these aspects, however, which concern us most but they are important because of their universality, especially among men who have served many years. That is, even if no other factor of the prison culture touches the personality of an inmate of many years' residence, the influences of these universal factors are sufficient to make a man characteristic of the penal community and probably so disrupt his personality that a happy adjustment in any community becomes next to impossible" (p. 300). Thomas and Foster (1972) cite three potential

consequences: 1) the development of attitudes which oppose the formal organization of the prison, 2) the placement of a high priority on interpersonal relationships with other inmates, and 3) an increase in criminal identification. "The phases of prisonization which concern us most are the influences which breed or deepen criminality and antisociality and make the inmate characteristic of the criminalistic ideology in the prison community" (Clemmer, 1958, p. 300).

The Effects of Incarceration

Thomas and Foster (1972) stated that the greater the degree of assimilation into the normative culture of the prison, the greater the negative effects of incarceration on the inmate, in terms of personality disturbance and long-term life-chances. Prosocial role adaptation is inversely related to the negative consequences of prison. They also found that the more negative the inmate's post-prison expectations, the greater the negative effects of incarceration.

In 1780, prison reformer John Howard remarked that incarceration in the British prisons of that day was the most effective method of bringing about the destruction, present and future, of their inmates. More recently, Gill's (1952) data reveal that ". . . confinement in a prison works a profound change on the personality of the individual offender" (p. 2). Garrity (1966) stated that a long exposure to prison life leads to serious personality and social

difficulties. The results of research by Bauer and Clark (1976) support their hypothesis that increased incarceration has a harmful effect on personality.

Reid (1976) stated that prison destroys the inmate's personal identity and assigns a new one of a lower order. Bowman et al. (1974) found that incarceration depresses positive concepts of self and strips the inmate of personal identity. Sykes (1958) wrote that the deprivations and frustrations of imprisonment "appear as a serious attack on the personality" (p. 64), cause the "destruction of the psyche" (p. 64), and "pose profound threats to the inmate's personality or sense of personal worth" (p. 64). Garrity (1966) stated that as time in prison increases, the personality becomes less stable, and Gill (1952) adds that "personality disturbances present on commitment are prone to exaggeration under the stress conditions of prison life" (p. 53).

While in general, it appears that prison does not promote positive personality change (Bowman et al., 1974), there are a couple of studies in the literature which report mixed findings. Nieberding (1976) reported that incarceration alone does not produce changes in self-concept, but rather it is the interaction between incarceration and personality. The MMPI 4-8 type had more negative self-concepts throughout incarceration than the 4-9 type, and had

poorer institutional and heterosexual adjustment. Osterhoff (1974) studied personality change, as measured by the MMPI, in youthful offenders during incarceration, and developed a typology based on similarities in initial MMPI profiles. Of the four types yielded, significantly different changes occurred in different types. Incarceration had a positive effect on the personalities of some inmates, a negative effect on others, and no effect at all on others.

Garrity (1966) stated that "prison experiences, like those of the child in family and peer group, may be sufficient to shape attitudes, values, behavior patterns, etc." (p. 362). Jacobs (1974) studied personality adjustment as a function of time within the Colorado State Penitentiary to determine whether psychopathology increased or decreased during the first year of imprisonment. Using the Msikimins Self-Goal-Other Discrepancy Scale-II (MSGO-II), it was determined that inmates confined one year differed significantly from those confined seven to eleven days, and from those confined three months, on four of six factors: anxiety, cultural rejection, interpersonal problems, and feelings of paranoia. There was no significant difference in depression or in the Grand Total Factor. The author concluded that psychopathology, as measured by the MSGO-II, increased as a function of time within the first year of incarceration. Kozma (1972) compared short-term (six to eighteen months)

and long-term (over three years) prisoners using the Edwards Personal Preference Schedule and the MMPI, and found that while the prisoners showed an overall decrease in pathology during incarceration, they retained the basic psychopathic components of their personaltities.

Banister et al. (1973) studied inmates sentenced to ten years or more by a test-retest method on a general test battery with an interval of 19.08 months. They found that general intelligence was unchanged, perceptual-motor speed declined somewhat, and hostility and introversion increased significantly with the length of time served. Eysenck (1964) found that incarceration increases emotionality which potentiates antisocial habits, and Reid (1976) added that it aggravates aggression, regression with dependency, resignation, and a fixation on, or obstinate clinging to, deviant patterns. Gill (1952) found that "the prison environment appears to foster, in the first offender, tendencies toward sluggishness and apathy, rationalization and self-pity, atypical and antisocial thinking, and increased indulgence in fantasy as a substitute for active pursuits" (p. 53). Wheeler (1961) found that increased length of incarceration reduced the proportion of inmates who conform to staff expectations.

Zimbardo et al (1973) conducted an experiment in which they simulated a prison environment. They found that the

dehumanizing procedures used, identical to those typical of real prisons, had devastating effects on their "inmates" (normal college students). Zimbardo (1972) reports that the six days the experiment lasted undid a lifetime of learning, suspended human values, challenged self-concepts, and evoked pathology. In actual prisons, enough pathology is generated to debase inmates' humanity, lower their feelings of self-worth, and make it difficult for them to readjust to outside society (Zimbardo, 1972).

Persons (1970) conducted a study to evaluate the psychological effects of a boys' reformatory on its inmates. He compared first offenders (FOs) with recidivists (Rs), and compared both with boys who had been institutionalized for a long period of time (LIs). FOs and Rs were tested upon admission (Time Period 1), and retested 20 weeks later (Time Period 2). To examine the long-term effects of incarceration he tested another group, the LIs, who had been incarcerated at least eight months at Time Period 2 ($\bar{X}$=9 1/2 months). The instruments used were the Manifest Anxiety Scale (MAS) and the Delinquency Scale (DS), which yields four scores: PD (psychopathic delinquency), Ne (neurotic delinquency) PD + Ne = DS, and PD - Ne (a psychopathic measure).

On retesting, there were no significant differences between FOs and Rs, and both were signficantly more neurotic and sociopathic than boys being admitted to the reformatory.

Persons' test-retest results on Rs showed that the additional 20 weeks of incarceration increased all three indicators of sociopathy (PD, DS, and PD-Ne). This is consistent with Wheeler's (1961) finding that a re-prisonization process occurs among recidivists.

Persons' data indicate that FOs are very anxious and afraid upon admission to the reformatory. This reaction seems to subside as they adjust to the environment, but thereafter, further incarceration leads to increased psychopathology. The LI group was more anxious and neurotic than the Rs on either testing and the FOs on retesting. He concludes that length of incarceration increases neuroticism and sociopathy. These factors should lead to a high recidivism rate, which seems to be the case; at the time of the study, this institution had a recidivism rate of 62%.

The Effects of Incarceration on Women

Most of the research cited above concerns the effect prison has on men. Gibson (1976) states that ". . . all prisons are psychologically harmful, but the typical women's institution inflicts graver damage, in spite of its more attractive appearance" (p. 99), and that "imprisonment is, if anything, less rational and more harmful for women than for men" (p. 107). Prison presents a crisis for women. Delinquent women are already characteristically weak, dependent, and helpless. Incarceration severs the ties with

those on whom a woman depends, and she needs to learn to be independent. But the prisons to which women are confined demand dependence and discourage independence (Gibson, 1976). There seems to be no positive solution to this crisis which attacks a woman's self-concept. Brodsky (1975b) states that for women, the criminal justice system effects the "process of incorporating the belief, 'I am a failure and a criminal, so I might as well act like one'" (p. 101).

Criminal Identification

It is fairly commonly believed that prisons are criminogenic in nature (Garrity, 1966). This may be in part due to the learning and development of criminal technique, but the factors which seem most responsible are those discussed previously which foster sociopathy. Prison robs its inmates of self-identity and attacks self-concept. The self-concept which is reconstructed in prison seems to be one which is based on a concept of self as criminal. Self-concept has an effect on future behavior. Reid (1976) reported a research finding that favorable self-concepts direct individuals toward law-abiding behavior while unfavorable self-concepts direct them toward delinquent behavior. Maskin and Flescher (1975) also found that lack of self-esteem is a primary factor in the motivation of delinquent behavior, and that a positive self-concept serves as an insulator against delinquency.

Sutherland and Cressey (1970) have stated that "persons become criminals principally because they have been relatively isolated from the culture of law-abiding groups, by reason of their residence, employment, codes, native capacities, or something else, or else have been in relatively frequent contact with a rival criminal culture. Consequently they are lacking in the experiences, feelings, ideas, and attitudes out of which to construct a life organization that the law-abiding public will regard as desirable" (p. 359). It follows that assimilation into the inmate culture, which is in most respects similar to the criminal subculture, would cause inmates to identify themselves as criminals.

Sykes (1958) described the development of a criminal self-concept in the inmates he studied as follows: "Whatever may be the personal traits possessed by these men which helped bring them to the institution, it is certain that the conditions of prison life itself create strong pressures pointed toward behavior defined as criminal in the free community. Subjected to prolonged material deprivation, lacking heterosexual relationships, and rubbed raw by the irritants of life under compression, the inmate population is pushed in the direction of deviation from, rather than adherence to, the legal norms" (p. 22). In fact, Bauer and Clark (1976) found that long-term prisoners show significantly higher scores than short-term prisoners on the K, D,

Pd, Sc, and Ma scales of the MMPI, determinants of habitual criminalism, when the effects of age, race, and educational level are partialled out statistically.

Thomas and Foster (1972) have described the process of criminal identification as the willingness to accept the label ascribed by society, the incorporation of that label into self-definition, and the willingness to continue to associate with criminals in free society. Wheeler (1961) stated that the net result of prisonization is "the internalization of a criminal outlook, leaving the 'prisonized' individual relatively immune to the influence of a conventional value system" (p. 697).

Miller and Dinitz (1973) found that adherence to the inmate code leads to recidivism. From the foregoing discussion it would also seem that adherence to the code would lead to stronger criminal identification. Thomas and Foster (1972) found that the greater the degree of criminal identification, the greater the probability of criminal involvement after release, and, consequently, a higher rate of recidivism for those individual seems likely. Wheeler (1961) commented that even inmates with no intention of pursuing a criminal career return to associations with other criminals after release because they provide a more supportive social setting. Further crime and repeat incarcerations often result from these associations.

Hassler (1972) admitted that prison does meet society's demands to take criminals out of circulation for varying periods of time, but "in most cases the criminal eventually is released again, equipped with some new prison-acquired skills and motivated by prison-enforced resentment" (p. 196). "By their reasoning, after an offender has been subjected to unfair or excessive punishment and treatment more degrading than that prescribed by law, he comes to justify his act which he could not have justified when he committed it. He decides to 'get even' for his unjust treatment in prison and takes reprisals though further crime at the first opportunity. With that decision he becomes a criminal" (McCleery, 1953, p. 55).

It appears that the old conceptualization of prisons as breeding grounds for crime may be fairly accurate. Wheeler (1961) states that ". . . if the (inmate) culture is viewed as an outgrowth of the criminogenic character of inmates, it is reasonable to expect a reinforcement process operating throughout the duration of confinement. This is consistent with the image of correctional institutions as 'crime schools' . . ." (p. 708). Sutherland and Cressey (1970) noted this phenomenon in the literature as far back as 1702, when the Society for the Promotion of Christian Knowledge, Committee on Prisons presented a report of its investigations titled "Essays toward the reformation of Newgate and other prisons

in and about London." In addition to other conditions, the report noted that "the old criminals corrupt the new" (Sutherland & Cressey, 1970, p. 315). Prolonged associations within the inmate culture do indeed seem to effect change within the individual, as well as in the inmate population.

Reduction of Variance in the Prison Population

The prison experience affects not only the individual inmates, it affects the inmate population as a whole. The main effect produced seems to be the reduction of variance in the population. That is, not only do inmates change as a result of imprisonment, but they change so as to become more like one another.

Sutherland and Cressey (1970) noted the diversity among newly admitted inmates as follows: "Among incoming inmates there is a variation in the degree of resentment toward the police, courts, county jail officials, or others; variation in the extent of remorse; variation in the extent of fear, bravado or defiance; and variation in other personal characteristics acquired prior to imprisonment" (p. 537). Incoming inmates are generally housed together for a certain period of time for the purposes of orientation and initial medical and psychological testing. After this period they are released into the general population. A federal prisoner remarked that after release into the general population "the differences in manner, in speech and in apartness tend to

disappear. Prison is a very democratizing institution: soon the psychopaths talk like the lawyers, and the lawyers talk like the psychopaths (Anonymous, 1972, p. 144).

The official prison organization does much to reduce the variance among inmates. This fact is noted by Ward and Kassebaum in their study of a women's prison: "In prison, the inmate is stripped of identifying and distinctive qualities, capabilities, and symbols until she comes to resemble all others around her" (1965, p. 75). The inmate culture also functions to reduce variance in its requirement of orthodoxy and uniform opposition to the staff. Most inmates conform to the inmate culture, if not out of peer pressure, then because if they do not conform, they will be faced with the societal rejection and the pains of imprisonment mitigated by the inmate culture. In sociological terms, since every culture permits only a limited number of types to flourish, they are those that fit the culture's dominant configuration. Most individuals will be sufficiently plastic to the molding force of the culture to conform to its dominant configuration; hence the reduction of variance and development of the "configurational personality" (Benedict, 1934).

In 1946, George Bernard Shaw wrote of the propensity of the prison environment to create the criminal type: "If you keep one (man) in penal servitude and another in the House

of Lords for ten years, the one will show the stigmata of a typical convict, and the other of a typical peer" (pp. 105-106).

The Personality of Prisoners

There have been several studies comparing prisoners' personalities with those of the general population. There seems to be general consensus that prisoners are significantly different from "normals." Maskin and Flescher (1975) found that delinquents report low self-esteem and a poor self-image with little self-respect or sense of worth. Eysenck and Eysenck (1973) developed a measure called the "P scale" which differentiates prisoners from normals. They found that prisoners score significantly higher than the general population. High P scores indicate that the individual is solitary and does not care for people; is troublesome and does not fit in; is cruel and inhumane; is insensitive and lacks in feelings; is sensation-seeking; is hostile and aggressive toward others; has a liking for odd, unusual things; is foolhardy and disregards danger; and enjoys making fools of others.

By far, the most commonly used instrument in the study of prisoners' personalities has been the MMPI. Reid (1976) summarized the literature comparing delinquents with nondelinquents and found that delinquents score especially high on the psychopathic deviancy (Pd) scale. Gill (1952) found

the average order of MMPI scales in the studied sample of prisoners to be: Pd (psychopathic deviate), Pa (paranoia), Sc (Schizophrenia), Ma (hypomania), Hs (hypochondriasis), Hy (hysteria), Pt (psychasthenia). Persons (1971) found the most frequently occurring MMPI high points within the institution he studied to be (in order of frequency): Pd-D (depression), Pd-Ma, Pd-Sc, and Pd-Hy. All studies indicate the predominance of the Pd scale. In studying criminal prisoners using the MMPI, Eysenck (1964) found that "it is this Pd scale which, more than any other contained in this inventory, discriminates this group from the normal control groups or even from neurotic groups tested in hospitals" (p. 123).

Male/Female Differences

The vast majority of research on incarcerated populations has been done on males. There has been little done on the personalities of female prisoners (Eysenck & Eysenck, 1973; Panton, 1974). However, the literature does contain a few studies of females, or studies comparing females with males. Bowman et al. (1974) found that delinquent females have more negative self-concepts than nondelinquent females. Fry (1949) used the MMPI to compare male college students with male prison inmates, female college students with female prison inmates, and males with females. Female prison inmates had higher scores than female college students

on all scales except Hysteria. Male prison inmates had higher scores than female prison inmates on all scales except Paranoia. Joestring et al. (1975) found that female prison inmates had significantly higher IQs than male prison inmates. They also found that male prisoners had significantly higher scores than female prisoners on all MMPI scales except L, K, and Ap, an empirically constructed prison adjustment scale indicating an acting-out hostile response to custodial stress and confinement marked by deliberate violation of prison rules. Female prisoners scored signficantly higher than male prisoners on the Ap and K scales.

The most extensive study comparing female prisoners with males (Panton, 1974) found that females are more likely to come from shattered homes, have greater difficulty in their interpersonal relationships with family and peers, and present a greater instance of marital incompatibility. Twenty-four percent of the females had records of having been treated for mental problems compared to twelve percent of the males. Using the MMPI, Panton compared female prisoners who presented valid protocols with male prisoners, matching them for other characteristics. He found that both females and males had elevated Pd scales, which is characteristic of prison groups. However, item analysis revealed that males responded more frequently to items denoting

authority conflict characterized by resentment of social demands and conventions, while females responded more frequently to items implying feelings of isolation and lack of gratification in social relationships. The males presented a 428 (Pd, D, Sc) profile code, while the females presented a 4628 (Pd, Pa, D, Sc) profile code. The relative importance of the Paranoia scale (second in score magnitude for females, ninth for males) is consistent with Fry's (1949) finding, and indicates that female prisoners, much more than male prisoners, are overly subjective, have greater sensitivity of feeling, and have the feeling of being different and not easily understood by others. Females scored significantly higher than males on the Si (social introversion) scale indicating that they are more deviant, more inclined to withdraw from social intercourse, and feel less confident in their ability to cope with the socioeconomic demands of society. The significant elevation of the means for the males on the Hs (hypochondriasis) and D (depression) scales indicates that they are more prone to voice physical complaints, more pessimistic in their outlook on life, and more inclined toward irritability and emotional immaturity than females.

Racial Differences

In a study comparing the personalities of black and white prisoners, Fry (1949) found no differences in MMPI

scale scores. However, in several other settings, several other authors have found differences between blacks' and whites' personalities using the MMPI. In an all-male population of tuberculosis patients in a VA hospital, Hokanson and Calden (1960) found that blacks scored significantly higher on the Pd, Mf, Sc, Ma, L and F scales than whites. Miller et al. (1961) compared black and white patients at a VA mental hygiene clinic. They compared their results to those of other similar studies and found that interaction effects of race and the type of institution within which the research was conducted accounted for most of the variance. On the basis of race alone, Miller et al (1961) found that blacks scored signficantly higher than whites on the Sc and Ma scales. McDonald and Gynther (1963) compared black and white high school seniors from segregated schools to assess differences based on race, sex, and socioeconomic factors. Blacks scored significantly higher than whites on the L, F, D, Mf, Sc, and Ma MMPI scales. An interaction effect revealed that black females scored higher than white females on Mf. There were no significant differences attributable to socioeconomic factors, indicating that racial differences found are probably cultural, rather than economic. Gynther et al. (1971) administered MMPIs to a southern, all-black community. They found that the most frequent peak score for both sexes was on Sc. The second most frequent was Ma for males and Pa

for females. For the most frequent two-point codes, Sc-Pa and Sc-Ma were tied for males, and Pa-Sc, Sc-Pa, and Sc-Ma were tied for females. Based on white norms, these codes would be considered psychotic, yet they were the norm in the community studied. Elion and Megargee (1975) studied the Pd scale with male prisoners, and found that it validly differentiates levels of deviance, but that the norms show racial bias as blacks score significantly higher than whites. In general, it appears that MMPI norms differ for the two races, particularly with regard to the Sc and Ma scales.

Development of a Modal Personality

The literature suggests that increased accumulated time in prison affects personality and increases psychopathology. The greater the psychopathology of the personality, the greater the criminal identification, and the more likely the individual will return to crime after release and eventually return to prison. After this return to prison, criminogenic factors continue to operate to further increase psychopathology, and a cyclical process ensues. For these reasons, recidivists should be more deviant than first offenders. Panton (1962) compared a habitual criminal group (inmates serving their fourth felony prison sentence) with a nonhabitual group (inmates at least forty years old, serving their first prison sentence, who spent at least twenty years of their adult lives gainfully employed). He found the

habituals to have significantly higher scores on the Pd and Ma scales of the MMPI than the nonhabituals. The habitual group also had higher scores on the D, Sc, and Mf (masculinity/femininity) scales although significance was not obtained.

Bauer and Clark (1976) were also able to discriminate recidivists from first offenders. They found that repeat offenders scored signficantly higher on the K, D, Pd, Sc, and Ma scales of the MMPI than first offenders. They also found that long-term offenders scored significantly higher on these scales than short-term offenders. Because they matched their subjects with respect to length of current sentence, meaning that the observed differences were not due to the sentences having been imposed on the basis of perceived pathology, they were able to implicate length of incarceration as a cause and not a result of the increased pathology found. When they statistically partialled out the confounding demographic variables of age, race, and educational level, the significance of the observed differences increased, strengthening their conclusion that length of incarceration is responsible for the increased pathology found.

Based on the concept of the configurational personality, DuBois (1960) proposed the term "modal personality" to designate central tendencies in the personalities of a group

of people which result when "potentialities are acted upon by common cultural pressures" (p. 5). The study of the relationship between personality and culture includes examination of certain psychological factors of individuals living within that culture. The study of modal personality also includes examination of the repeated and standardized experiences, relationships, and values to which most individuals in a given society are exposed. Statistically, modal personality is a profile of mean scores of a sample of members of a given society on some instrument, measured upon a common baseline (Zaccaria, 1967). Since prisoners constitute a group of people subject to a common cultural milieu, it is logical to assume the development of a modal personality.

In summary, the prison environment encourages the development of a "modal personality" in inmates. This personality is characterized by psychopathic deviance and resembles the criminal or sociopathic personality.

The Sociopathic Personality

In 1952, the American Psychiatric Association defined sociopathy or antisocial sociopathic personality (formerly termed psychopathy or psychopathic personality) as "chronically antisocial individuals who are always in trouble, profiting neither from experience nor punishment, and maintaining no real loyalites to other person, group, or code. They are frequently callous and hedonistic, showing marked

emotional immaturity, with lack of sense of responsibility, lack of judgement (sic) and an ability to rationalize their behavior so that it appears warranted, reasonable, and justified (Reid, 1976, p. 162).

Eysenck (1964) defined the psychopath (or sociopath) as one who has manifested considerable difficulty in social adjustment over a period of many years or throughout life, is not defective in intelligence nor suffering structural disease of the brain or epilepsy, and has difficulties in adjustment not characterized by behavioral syndromes known as neuroses or psychoses.

Several authors have cited characteristics of sociopaths (or psychopaths). Eysenck (1964) lists: defects of emotional control, inability to profit from experience, impulsiveness, lack of foresight, inability to modify infantile standards of conduct, lack of self-reliance, unsatisfactory adjustment to the group, inability to withstand tedium, irresponsibility of character, and lack of understanding of and refusal to obey social and moral rules. Reid (1976) mentions: inability to form warm interpersonal relationships; lack of a feeling of guilt; disregard for community or group standards; lack of foresight; the virtual absence of moral judgment; lack of superego; ego-centrism; lack of a life plan; limited capacity for love and emotional involvement; excessive dependency on others; sexual immaturity; and

emotional immaturity with an emphasis on immediate, not deferred, pleasure. Gough (1948) includes: over-evaluation of immediate goals as opposed to remote or deferred ones; lack of concern over the rights and privileges of others when recognizing that they could interfere with personal satisfaction in any way; impulsive behavior, or apparent incongruity between the strength of the stimulus and the magnitude of the behavioral response; inability to form deep or persistent attachments to other persons or to identify in interpersonal relationships; poor judgment and planning in attaining defined goals; apparent lack of anxiety and distress over social maladjustment, and unwillingness or inability to consider maladjustment as such; a tendency to project blame onto others and to take no responsibility for failures; meaningless prevarication, often about trivial matters in situations where detection is inevitable; almost complete lack of dependability and of willingness to assume responsibility; and finally, emotional poverty.

This, then, is the type manufactured by our prison system.

Summary

In the twentieth century, the field of corrections has seen the advent of the concept of rehabilitiation to replace punishment of public offenders. Rehabilitation is not only more humane, it is supposed to be more effective in solving

the problem of crime through the reformation of criminals. But the ever-rising crime rate in our cities and the seventy percent recidivism rate in our prisons indicate that it is not. In fact, the literature reveals that our modern penal system may have just the opposite effect.

The impact of incarceration on individual inmates is great. Their self-concepts are damaged, self-esteem lowered, and self-identity stripped by degrading and demeaning procedures and a series of systematic deprivations and frustrations. Attempting to mitigate these "pains of imprisonment," inmates develop an informal social system as a means of acquiring status and a code of ethics to insure solidarity in opposition to the prison staff.

Subjection to the prison environment, including both the official organization and the unofficial inmate culture, may have a harmful effect on prisoners' personalities. It appears to elicit elements of sociopathy and pathology in general, and increase criminal identification in individual inmates. It seems to reduce the variance in the inmate population through the creation of a "modal personality."

Our prisons appear to be criminogenic in nature. Individuals incarcerated in them seem to develop personalities which cause them to return to crime following release. "Rehabilitation" appears not to be rehabilitating.

CHAPTER III
METHODOLOGY

This study investigated changes in personality traits of incarcerated women as a function of race and time served. Both changes in MMPI mean scores and the variances within the population were investigated. The subjects were female inmates at the Women's Unit of the Florida Correctional Institution at Lowell, Florida. Inmates having served a previous state or federal prison sentence were excluded from the sample. The personality traits studied were those as measured by the Minnesota Multiphasic Personality Inventory (MMPI). All inmates are routinely given the MMPI upon admission to the institution and these scores provided the pretest data for this study. The data collected were analyzed statistically to ascertain changes among various groups (based on race and time served) and within population variance as a function of time served.

Hypotheses

The following null hypotheses were tested:

H_o1: No significant differences will exist in the mean group MMPI scale scores of newly admitted inmates, inmates who have served 3-6 months, and inmates who have served 9 months or more.

H_o2: No significant differences will exist between the mean group MMPI scale scores of black and white inmates.

H_o3: No significant differences will exist between the mean group MMPI scale scores of black and white inmates as a function of time served.

H_o4: No significant differences will exist in the variances of MMPI scale scores of newly admitted inmates, inmates who have served 3-6 months, and inmates who have served 9 months or more.

H_o5: No significant differences will exist between the variances of MMPI scale scores of black and white inmates as a function of time served.

Subjects and Procedures

The subjects for this study were female prison inmates incarcerated at the Florida Correctional Institution (F.C.I.), Lowell, Florida. Only inmates housed in general population at the Women's Unit were considered. Those inmates housed at the honor facility and those in administrative or disciplinary confinement were excluded from the sample. From this group, seventy-six (76) were excluded from the study because their records indicated a previous state or federal prison sentence.

The MMPI is routinely administered to all inmates entering F.C.I. Any inmate who was not tested, or who presented an invalid profile at the time of testing, was

excluded from the subject pool. Of the 348 first-time offenders, 23 had not been tested upon admission: 16 because of an inability to read at an advanced enough level (sixth grade level), 4 were unable to be tested for medical reasons, and 3 had refused testing. Of those inmates given the MMPI, 44 presented invalid profiles: 37 presumably for an inability to read and/or comprehend the test items, and 7 for unknown reasons.

These exclusions left the remaining sample pool at 281. Every other inmate on this list was selected for inclusion which yielded 141 subjects for this study.

Subjects for the "newly admitted" group were those housed at "Reception and Orientation" at the time of the study. The MMPI was administered to these subjects as part of a regular battery of tests given by the staff psychologists. Of these 39 inmates, 6 had served previous state or federal prison sentences and one presented an invalid MMPI profile. Thus, 32 inmates (11 white and 21 black) made up the "newly admitted" sample for this study. MMPI scores for these subjects were obtained from the staff psychologists' records.

The remaining 141 inmates, selected in the manner previously delineated, were given a brief verbal description of the present study and advised of the confidentiality of their responses. As dictated by the institution authorities,

they were also assured that participation was voluntary. Forty-nine inmates chose to participate in the study and were readministered the MMPI.

Previous research has reported few significant differences between research volunteers and nonvolunteers. Volunteers were found to be more moody, introverted, and possess higher self-esteem than nonvolunteers, although not significantly so (Riggs & Kaess, 1955; Maslow & Sakoda, 1952). Lasagna and von Felsinger (1954) found volunteers in pharmacological research to be significantly more psychologically maladjusted than nonvolunteers, yet it must be considered that the primary motivation to volunteer for many of these subjects was to obtain a drug which would provide relief from their personality problems.

In studies specific to inmate populations, volunteers were found to be loners and to have significantly higher IQs than nonvolunteers (Arnold et al., 1970; Cudrin, 1969). In comparing volunteers with nonvolunteers in both drug and social-interest research, Wells et al. (1975) reported no significant differences in demographic variables including race, IQ, education, socioeconomic status, etc. Concerning psychological characteristics, social-interest research volunteers did not differ significantly from nonvolunteers on the Adjective Checklist, the Lykken Anxiety Measure, the Marlowe-Crowne Social Desirability Scale, the Rotter

Internality-Externality Measure, the Rigidity Measure, the Buss-Durkee Hostility Inventory, the Garabedian Index of Prison Socialization, or the Tittle & Tittle Conformity-to-prison-code Measure. On the Feelings Self-Report Checklist, social-interest research volunteers reported significantly less intense feelings of hopelessness than the nonvolunteers. The groups did not differ on the other seven scales.

Inmates decisions to volunteer for research are made impulsively and are primarily motivated by the desire to do something worthwhile or courageous, the desire to keep out of trouble in the institution, and a moderate degree of belief that volunteering will improve chances for parole (McDonald, 1967; Weissman et al., 1972; Wells et al., 1975). Factors encouraging inmate volunteerism include the lack of other constructive activity, need for interesting and stimulating experiences, and peer pressure (Arnold et al., 1970; Cudrin, 1969; Wells et al., 1975). Factors discouraging inmate volunteerism include suspicion of information from "establishment" sources and problems in communication with the research staff (Arnold et al., 1970; Weissman et al., 1972; Wells et al., 1975).

In the present study, the subjects who volunteered to participate were compared to the nonvolunteers on several demographic variables. Volunteers were found not to differ significantly from nonvolunteers with regard to race, age,

length of sentence or length of time served. In addition, the MMPI scores of both groups upon admission to the institution (i.e. pretests) were compared to determine initial psychological differences. The volunteers did not differ significantly from the nonvolunteers on any MMPI scale including the K-scale which detects the tendency to give socially desirable responses. Therefore, the volunteers for this study appear to be representative of the general prison population as far as state guidelines permit comparison.

The data collected in this manner were then arranged into groups according to the length of time the subjects had been incarcerated. The group of inmates who had served between 3 and 6 months consisted of 27 subjects, 11 white and 16 black. The group having served 9 months or more consisted of 22 subjects, 6 white and 16 black. The frequency distribution of the races in the three subgroups (newly admitted inmates, inmates who had served between 3 and 6 months, and inmates who had served 9 months or more) did not differ significantly, $X^2(2)=.98$, $p<.60$. Any possible effects of this nonorthogonal design were accounted for statistically in the analysis of the data.

Previous research has shown a significant increase in psychopathology in inmates' personalities within the first few months of incarceration (Gill, 1952; Garrity, 1966; Persons, 1970). Gill's data indicate that this change has already begun to occur at three months.

Instrumentation

The instrument used in this study is the Minnesota Multiphasic Personality Inventory (MMPI). It is a personality test designed to provide an objective measure of psychopathology. It contains 566 items to be answered "true," "false," or "cannot say." The items yield fourteen scales. The first ten scales, termed the clinical scales, refer to specific personality characteristics. The final four scales deal with the reliability and validity of the individual administration of the test, but also give meaningful information about personality. A description of each scale follows:

1-Hypochondriasis (Hs): excessive concern for health or bodily functions which restricts one's range of activities and interpersonal relationships. High scores on this scale indicate egocentrism, immaturity, and a lack of insight.

2-Depression (D): High scores on this scale indicate pessimism, feelings of hopelessness or worthlessness, slowing of thought and action, and preoccupation with death or suicide.

3-Hysteria (Hy): the use of physical symptoms as a means of solving conflicts or avoiding responsibilities.

4-Psychopathic deviate (Pd): High scores on this scale indicate a repeated and flagrant disregard for social customs and mores, conflict with authority, resentment of social demands and conventions, lack of a sense of responsibility,

inability to profit from punishing experiences, feelings of isolation, a lack of gratification in social relationships, and emotional shallowness, particularly in sexual and affectional display.

5-Masculinity/Femininity (Mf): male sexual inversion. For males, high scores on this scale indicate feminism in values, attitudes and interests, and styles of expression and speech, as well as in sexual relationships. For females, interpretation is ambiguous.

6-Paranoia (Pa): delusional beliefs of reference, influence, and grandeur. High scores on this scale indicate misperceptions or misinterpretations of one's life situation markedly out of keeping with ability and intelligence.

7-Psychasthenia (Pt): obsessive-compulsive syndrome. High scores on this scale indicate obsessive ruminations, compulsive behavioral rituals, abnormal fears, worrying, a difficulty in concentration, guilt, excessive vacillation in making decisions, high standards of morality, self-criticism, and aloofness from personal conflicts.

8-Schizophrenia (Sc): bizarre or unusual thinking and behavior. High scores on this scale indicate constraint, coldness, apathy, indifference, delusions, hallucinations, disorientation, inactivity, withdrawal of interest from other people or objects, social alienation, and feelings of persecution.

0-Social introversion (Si): withdrawal from social contacts and responsibilities. High scores on this scale indicate little real interest in people and a withdrawn personality.

Cannot say (?): the number of items omitted or double-marked. High scores on this scale indicate an inability to comprehend the content of the item, lack of co-operation, anger, alienation, hostility, or defensiveness.

Lie (L): identifies deliberate efforts to evade answering honestly. High scores on this scale indicate a denial of agression, bad thoughts, weakness, poor self-control, prejudice, or dishonesty in an effort to make oneself look good.

Infrequency (F): unusual responses to items nearly always answered in one direction by the standardization group. High scores on this scale indicate an atypical or deviant way of answering items.

Correction (K): identifies subtle score-enhancing or score-diminishing factors and provides a means of statistically correcting the scores on the clinical scales to offset these effects (Dahlstrom et al., 1972; Panton, 1974; Eysenck, 1964; Joestring et al., 1975).

Validity and Reliability

Ellis (1946) has described the MMPI as one of the most valid instruments available for the assessment of personality.

Hathaway and McKinley (1951) found that a high score on any particular scale correlated positively with clinicians' final diagnosis in 60% of new psychiatric admissions. Measurements of the MMPI's validity as a personality assessment instrument are generally made on the individual scales. Rotter (1949) reported satisfactory differentiation between patients of a given nosology, unselected patients, and normals based on MMPI scores. Endicott and Endicott (1963) found a significant but minimal correlation between scale 1 (Hs) scores and clinicians' ratings of somatic preoccupation of military personnel and their dependents manifested in independent interviews (.31). Endicott and Jortner (1967) found correlations of .23 and .37 between scale 1 scores and manifested somatic preoccupation in two studies of psychiatric patients. In separate studies of psychiatric patients, Endicott and Jortner (1966) and Zuckerman et al. (1967) found correlations of .51 and .59 respectively between scale 2 (D) scores and clinicians' ratings of depression. Between self-ratings of depression and scale 2 scores, correlations of .69 to .72 have been found (Zung, 1967; Zung et al., 1965; Morgan, 1968). McKinley and Hathaway (1944) express the difficulty of validation of scale 3 (Hy) scores because of the possibility of a covert physical basis for symptoms. Little and Fisher (1958) found a strong negative correlation between the somatic items and the social facility items of

scale 3 among normals and a significant positive correlation among psychiatric patients, thereby distinguishing the two groups. Items on scale 4 (Pd) were selected for their ability to distinguish delinquents from normals. Several studies have shown the ability of scale 4 to make this discrimination (Hathaway & Monachesi, 1963; Capwell, 1945 a and b; Wirt & Briggs, 1959; Richardson & Roebuck, 1965). Scale 5 (Mf) has been shown to identify sexual inversion in males (Terman & Miles, 1936), but its meaning is ambiguous for women and this scale appears to have little validity for them (Dahlstrom et al., 1972). Endicott et al. (1969) found correlations of .19 and .29 between scale 6 (Pa) scores and clinicians' ratings in separate studies. Items on scale 7 (Pt) were selected to distinguish patients manifesting obsessive-compulsive syndrome from normals. Many of the items correlate highly with overall scale 7 score; items whose content reflects aspects of this syndrome show correlations of .67 to .73 with overall scale 7 scores, indicating their validity (Little, 1949). Items on scale 8 (Sc) were selected and revised to distinguish schizophrenic patients from normals. Items whose content reflects obvious schizophrenic symptoms correlate .64 to .71 with overall scale 8 scores (Little, 1949). Items on scale 9 (Ma) were selected to distinguish hypomanics from normals, and McKinley and Hathaway (1944) report that it is an effective differentiator.

Items selected for scale 0 (Si) were those which distinguished subjects scoring above the 65th percentile from subjects scoring below the 35th percentile on the social introversion-extroversion subscale of the Minnesota T-S-E Inventory (Drake, 1946).

The MMPI also contains four scales (?, L, F, and K) termed validity indicators which provide information on the validity of the individual test administration, and identify sources of invalidity.

Considerably more research data have been published on the reliability of the MMPI than on its validity. The results of some of the test-retest reliability studies are reported in the Appendix.

Data Analysis

An analysis of variance was performed on the pretests of the three groups to assure their equivalence at the time of their admission to the institution.

An analysis of variance was then performed on the pretests and posttests (for the subjects in the 3-6 months and 9^{+} months groups) to determine 1) changes in MMPI scale scores as a function of time, 2) differences between blacks and whites, and 3) differences between blacks and whites as a function of time, i.e. interactional effects of time and race. A Duncan's multiple range test was conducted to further explore significant time differences. Simple effects

tests were conducted to further explore significant interaction effects.

A test of homogeneity of within group variance-covariance matrices was performed to assess significant differences in variances as a function of time and/or race.

The results of these analyses are presented in Chapter IV.

CHAPTER IV
RESULTS

The present study examined two factors as they relate to personality change in incarcerated women: race and length of incarceration. The subjects were female inmates at the Florida Correctional Institution at Lowell, Florida, serving their first prison sentence. The aspects of personality studied were those measured by the ten scales of the Minnesota Multiphasic Personality Inventory (MMPI). The MMPI is routinely administered to prison inmates upon admission to a Florida correctional facility. This initial testing provided the pretest data for this study. Subjects were retested and their scores analyzed on the basis of race and amount of time served between the pretest and posttest. Personality changes were tested using an analysis of variance, and changes in group variances were tested using a test of homogeneity of within group variance-covariance matrices. Results of these statistical analyses are presented in this chapter.

Analysis of Pretests

An analysis of variance was conducted on the pretests of all three groups to assure their equivalence. On the basis of time served, the groups showed no significant

differences on any of the ten scales of the MMPI except scale 5 (masculinity/femininity). Analysis of scale 5 revealed that scores for the "newly admitted" group differed significantly from the scores of the 3-6 months and the 9^{+} months groups (see Table 1). Because of the relatively short time intervals separating the groups, this difference probably reflects sampling error rather than any meaningful trend in masculinity/femininity characteristics.

On the basis of race without regard to time served, several scales yielded significant differences as a result of testing. On scales 1(Hypochondriasis), 6(Paranoia), 7(Psychasthenia), and 8(Schizophrenia), blacks scored significantly higher than whites, indicating that the black inmates in this study exhibited significantly more excessive concern for health or bodily functions; maintained delusional beliefs of reference, influence, and grandeur; revealed obsessive-compulsive patterns; and showed bizarre or unusual thinking or behavior when compared to the whites. On scale 5(Masculinity/femininity), the white inmates in this study scored significantly higher than the black inmates in this study, indicating that they were more feminine in values, attitudes, and interests (see Table 2).

These results are not unexpected. Previous research has shown that while the MMPI is valid for use with black subjects, black norms are different from white norms as

Table 1. Differences on Scale 5 Pretest Scores as a Function of Time Served.

Time Served	Scale 5 Means
Newly admitted	32.34
3-6 months	35.33
9^{+} months	

F (5, 75) 4.32

$p < .02$

Table 2. Differences on Pretest Scale Scores as a Function of Race.

	Scale 1	Scale 5	Scale 6	Scale 7	Scale 8
Black means	19.02	33.21	13.96	32.17	33.47
White means	15.07	36.07	11.68	28.50	26.93
F (5, 75)	7.99	7.15	4.92	6.86	12.46
$p <$	.01	.01	.03	.01	.001

blacks tend to score higher on most scales (Gynther, 1972; Elion & Megargee, 1975). The relationship of these scores to normative data was of no consequence to the present study and was therefore not discussed here. These initial differences between the races, however, must be taken into consideration when interpreting posttest results.

Hypothesis Testing

H_o1: No significant differences will exist in the mean group MMPI scale scores of newly admitted inmates, inmates who have served 3-6 months, and inmates who have served 9 months or more.

An anaylsis of variance was performed on the pretests and posttests (for the subjects in the 3-6 months and 9^+ months groups) to test the preceding null hypothesis.

On the basis of time served, the analysis indicated a significant difference somewhere among the groups on scale 5(Masculinity/femininity). A Duncan's multiple range test indicated that the "newly admitted" group was significantly different from the other two groups (3-6 months and 9^+ months), which were not significantly different from each other (see Table 3). Since these differences appeared in the comparison of the pretests, probably as a result of sampling error, the significance shown in the posttests cannot be interpreted with any confidence. It seems likely that whatever factor was responsible for the effects shown

Table 3. Differences on Scale 5 Posttest Scores as a Function of Time Served.

Time Served	Scale 5 Means
Newly admitted	32.34
3-6 months	35.74
9^{+} months	34.73

F (5, 75) 3.41

$p < .04$

in the posttests was also acting at the time of the pretests. None of the scores on any of the other MMPI scales showed significant changes as a function of time served. Therefore, H_o1 was accepted.

H_o2: No significant differences will exist between the mean group MMPI scale scores of black and white inmates.

On the basis of race, the analysis indicated significant differences between blacks and whites on several MMPI scales. On scales 1(Hypochondriasis), 7(Psychasthenai), and 8(Schizophrenia), blacks scored significantly higher than whites (see Table 4), which indicates that, in this study, blacks were more excessively concerned with health or bodily functions, obsessive-compulsive, and schizophrenic.

Scores of three scales approached the accepted level of significance ($p<.05$) on the basis of racial differences. Blacks scored higher on scales 6(Paranoia), 9(Hypomania), and 10(Social introversion) than whites (see Table 4), which indicates that the black inmates tended to be more paranoid, overactive, and withdrawn from social contacts. Therefore H_o2 was rejected.

H_o3: No significant differences will exist between the mean group MMPI scale scores of black and white inmates as a function of time served.

Table 4. Differences on Posttest Scale Scores as a Function of Race.

	Scale 1	Scale 6	Scale 7	Scale 8	Scale 9	Scale 10
Black means	18.66	13.11	31.62	33.13	23.13	32.15
White menas	14.43	11.07	27.75	26.25	20.82	28.39
F (5, 75)	11.10	3.88	8.81	12.76	3.91	3.67
p <	.001	.053	.004	.001	.052	.06

Scale 7(Psychasthenia) revealed a significant time X race interaction effect, F (5, 75) = 4.95, $p<.01$. Scale 4(Psychopathic deviance) approached significance in a time X race interaction effect, F (5, 75) = 2.48, $p<.10$. Simple effects tests were conducted on the data available from these two scales to determine the nature of the interaction effects. On scale 7(Psychasthenia), blacks in the "newly admitted" group scored significantly higher than whites in the "newly admitted" group, and blacks in the 9^+ months group scored significantly higher than whites in the 9^+ months group. The races were not significantly different in the 3-6 months group (see Table 5). This indicates that black inmates in the "newly admitted" and 9^+ months groups were more obsessive-compulsive than the white inmates in these groups.

On scale 4(Psychopathic deviance), blacks in the "newly admitted" group scored higher than whites in the "newly admitted" group meaning they were more sociopathic. The races were not significantly different within the other two groups (see Table 6). Therefore, H_o3 was rejected.

H_o4: No significant differences will exist in the variances of MMPI scale scores of newly admitted inmates, inmates who have served 3-6 months, and inmates who have served 9 months or more.

Table 5. Interactional Effects of Time and Race on Post-test Scale 7 Scores.

	Scale 7 Means	F(1, 75)	Level of Significance
Newly admitted blacks	32.57	9.04	$p < .004$
Newly admitted whites	26.54		
3-6 months blacks	29.44	.32	nonsig.
3-6 months whites	30.91		
9^{+} months blacks	32.56	9.01	$p < .004$
9^{+} months whites	24.17		

Table 6. Interactional Effects of Time and Race on Post-test Scale 7 Scores.

	Scale 7 Means	F(1, 75)	Level of Significance
Newly admitted blacks	28.52	3.94	$p < .05$
Newly admitted whites	25.36		
3-6 months blacks	26.81	.99	nonsig.
3-6 months whites	28.54		
9^{+} months blacks	28.06	.74	nonsig.
9^{+} months whites	26.50		

H_o5: No significant differences will exist between the variances of MMPI scale scores of black and white inmates as a function of time served.

To test H_o4 and H_o5 and determine if the variances of group scores differed as a function of time and/or race, a test of homogeneity of within group variance-covariance matrices was performed. This test revealed no significant differences at the acceptable confidence level, χ^2 (110) = 121.45, $p<.21$. Therefore, H_o4 and H_o5 were accepted.

Limitations

The use of a voluntary sample is a limitation of this study. There is no assurance that the subjects who chose to participate are similar to the ones who refused, i.e. that the sample is representative of the population from which it was drawn.

Another limitation is in the generalizability of the results. Florida is one of only two states in the United States which has more than one women's prison and there is selectivity in assignment of inmates to one or the other of the state institutions in Florida. Therefore, the character of the population of F.C.I. may not be representative of other states which have only one prison for all females in the state.

Methodological assumptions

It is assumed that the investigator's participation in the administration of the MMPI posttests had no effect on the results. It is assumed that the use of a standardized instrument with standardized instructions controlled for variation in its administration.

CHAPTER V
SUMMARY, DISCUSSION, AND CONCLUSIONS

Summary

This study investigated personality change in incarcerated women as it related to the factors of length of incarceration and race. Subjects were first-time inmates at the Florida Correctional Institution, Lowell, Fla. Scores on the Minnesota Multiphasic Personality Inventory (MMPI) were used as the measure of personality characteristics. Pretest data were provided by the routine administration of the MMPI to all inmates upon admission to the institution. Posttest data were gathered by the investigator and compared with pretest data to examine personality changes and changes in group variability as a function of length of incarceration and of race. Results of an analysis of variance showed no personality change in the groups comprising the sample as a function of length of incarceration alone. Several differences in personality as a function of race were revealed in MMPI scales 1(hypochondriasis), 6(paranoia), 7(psychasthenia), 8(schizophrenia), 9(hypomania), and 10(social introversion). These results show that the black inmates in this study were more concerned with bodily functions, delusional, obsessive-compulsive, schizophrenic, overactive, and socially withdrawn than the white inmates.

Interaction effects of length of incarceration and race appeared on scales 4(psychopathic deviance) and 7(psychasthenia). These results indicate that the races are affected differently by the experience of incarceration. A test of homogeneity of within group variance-covariance matrices revealed no changes in group variability. All inmates were shown to maintain the basic sociopathic elements of their personalities, as measured by MMPI scale 4(psychopathic deviance), throughout incarceration.

Discussion

In general, the first hypothesis concerned changes in inmates' personalities occurring as a function of the amount of time they had been incarcerated, without regard to race. Analysis of the data revealed that the newly admitted group differed significantly from the other two groups on scale 5(masculinity/femininity) scores. This scale is concerned with masculinity/femininity characteristics, in terms of attitudes, values, interests, etc. Posttest scores showed that the group of newly admitted inmates were significantly less feminine than the other groups. At first, this would appear to indicate that prison has some sort of feminizing effect. However, the same difference was noted between the newly admitted group and the pretest scores of the other two groups. This seems to indicate that the groups had this difference at the time of admission to the institution and

mainteined it throughout incarceration. The significance noted in this scale, then, appears to represent some fundamental differences in the groups which did not change with increased length of incarceration. Results of the data analysis indicated no significance on any of the other MMPI scales. Therefore, this study revealed that the amount of time in prison, alone, did not significantly affect subjects' personalities.

In general, null hypothesis two concerned differences between black and white inmates, without regard to length of incarceration. Blacks scored significantly higher than whites on MMPI scales 1(hypochondriasis), 7(psychasthenia), and 8(schizophrenia) (see Table 4). Scale 1 is a measure of hypochondriasis, or the excessive concern with health or bodily functions, which is associated with egocentrism, immaturity and a lack of insight. Scale 7 is a measure of psychasthenia, or obsessive-compulsive syndrome, which is also associated with abnormal fears, worrying, built, difficulties in concentration and decision-making, and self-criticism. Scale 8 is a measure of schizophrenia, which is also associated with social alienation, feelings of persecution, apathy, indifference, disorientation, etc. Thus, the blacks in this study were more hypochondriacal, more obsessive-compulsive, and more schizophrenic. Results which closely approached the accepted level of significance showed

black subjects scoring higher than whites on MMPI scales 9(paranoia), 9(hypomania), and 10(social introversion). Scale 6 is a measure of paranoia or delusional beliefs of reference, influence, or grandeur. Scale 9 is a measure of hypomania, indicating overactivity, emotional excitement, and enthusiasm. Scale 10 is a measure of social introversion, indicating a withdrawal from social contact and responsibility. Thus, the blacks in this study tended to be more paranoid, more hypomanic, and more socially withdrawn.

Many of these racial differences have been noted previously in MMPI research with black subjects. The significantly higher scores of black subject on scales 8(schizophrenia) and 9(hypomania) were found in studies by Hokanson and Calden (1960), Miller et al. (1961), and McDonald and Gynther (1963). A study by Gynther et al. (1971) did not compare the races, yet found that the second most frequent peak score for black females in an all-black southern community was on scale 6(paranoia), with the first on scale 8(schizophrenia). The differences found in the present study on scales 6(paranoia), 8(schizophrenia), and 9(hypomania) were expected on the basis of cultural differences revealed by previous MMPI research.

The black subjects in this study scored significantly higher than the white subjects on the MMPI pretests on scales 1(hypochondriasis), 6(paranoia), 7(psychasthenia),

and 8(schizophrenia). Therefore, when these differences appeared on the posttests also, they most likely can be explained as representing some cultural differences, rather than some factor specific to this study.

Racial differences did not appear in the pretests on MMPI scales 9(hypomania) and 10(social introversion), yet were present in the posttests. On scale 9(hypomania), mean scores for whites tended to decrease between the time of the pretest and the time of the posttest, while mean scores for blacks tended to increase. This indicates that whites became somewhat less active, less excited and less enthusiastic while blacks became somewhat more so. On scale 10(social introversion), mean scores for whites tended to decrease between the time of the pretest and the time of the posttest, while mean scores for blacks tended to decrease to a lesser extent. This indicates that all inmates became less introverted and withdrawn but whites more so than blacks.

Statistical analysis of this hypothesis revealed that prison affected the races differentially with regard to the characteristics of hypomania and social introversion. This finding also confirmed results of previous research (Hokanson & Calder, 1960; Miller et al., 1961; McDonald & Gynther, 1963; Gynther et al., 1971) which indicated cultural differences between blacks and whites with regard to the characteristics of paranoia, psychasthenia, and schizophrenia.

In general, null hypothesis three concerned interaction effects of race and length of incarceration on personality change.

On scale 7(psychasthenia), blacks and whites differed significantly upon admission, and at 9^{+} months, but not in the middle range, 3-6 months (see Table 5). For black subjects, means decreased from admission to 3-6 months later, then increased for the group having served at least 9 months. The increase was back to the level they had been on the pretests. For white subjects, scale 7 means increased from admission to 3-6 months later, then decreased when inmates had served at least 9 months to below the level they had been on the pretests. The mean scores for blacks were significantly higher than the mean scores for whites in the "newly admitted" group and in the 9^{+} months group. While the mean scores were not statistically significantly different in the 3-6 months group, they were higher for the white subjects. This would seem to indicate that something occurring within that 3-6 month time period differentially affected the races in this study. This phenomenon appears to temporarily increase abnormal fears, worrying, guilt, self-criticism, etc. in white inmates, while temporarily alleviating these aspects for black inmates. On the basis of the data gathered in this study, it is not possible to identify the cause of this phenomenon, yet several factors occurring within the

3-6 months time period may be at least partially responsible: adjustment to prison life, adjustment to a work assignment, adoption of a new code of ethics (the inmate code), prisonization, first institutional progress report, adoption of disidentifying roles, and loss of contact with significant others outside prison.

On scale 4(psychopathic deviance), differences in mean scores between blacks and whites in the "newly admitted" group closely approached statistical significance; yet they were not significantly different in the other two groups (see Table 6). Upon admission, blacks scored higher than whites in the characteristics generally considered to compromise the sociopathic personality, including conflict with authority, resentment of society, inability to profit from experience, social isolation, and lack of conscience. Incarceration, or adjustment to it, functions to somewhat decrease these aspects for blacks and to somewhat increase them for whites, so that beyond admission the races are no longer different. This phenomenon indicates a democratizing effect on the mean scores of blacks and whites in the area of psychopathic deviance following the initial impact of incarceration.

In general, null hypotheses four and five were concerned with changes in the variability of the groups as a function of race and/or length of incarceration. While the first

three hypotheses were concerned with means and changes in group mean scores, these two examined the variances of the sample groups. It was the intent of this study, through these two hypotheses, to ascertain whether or not a "modal personality" developed i.e. whether or not the variance diminished as a function of time so that inmates' personalities would become more similar, and if race was a significant factor in this phenomenon. The data analysis yielded no significant results, indicating that a "modal personality" did not develop in this sample regardless of length of time served or the race of the inmate.

Conclusions

Previous literature, particularly in the area of prisonization, lends strong theoretical support to the concept of personality change as a function of length of incarceration as well as to the development of a modal personality among prison inmates. In general, this was not found to be the case within the sample of this study.

Most of the prior research in this area has been conducted with male subjects, and the lack of significant results in the present study with regard to personality and variance changes may be due to the possibility that women respond to incarceration very differently from men. Yet, it seems more probable that the results are due to an inherent bias in the voluntary sampling procedure. The number of

subjects willing to participate in this study was surprisingly low, and it is possible that this sample represents only the minority of inmates who are not so adversely affected by the prison environment as others. It is logical to assume that inmates who do become prisonized, who adopt the inmate code, would become more sociopathic, more skeptical and more suspicious, and therefore less likely to participate in psychological research.

The results of this study are meaningful with regard to the concept of rehabilitation. The most frequent peak score on both the pretests and the posttests was on scale 4 which measures psychopathic deviance, or sociopathy. The MMPI profiles of this sample were typical of prisoner or criminal populations. While the subject of this study did not become more sociopathic, they also did not become less sociopathic, as would be hoped from a rehabilitative process. Prisons are fairly effective at serving their purpose of houses of detention, but the question remains--are they rehabilitating their inmates?

With regard to race, the black subjects in the present study scored higher than the white subjects on six of the ten scales. These findings on scales 6(paranoia), 7(psychasthenia), and 10(social introversion) have not been previously reported. The differences noted on scales 1 and 7 were present in the subjects upon admission to the

institution and were maintained throughout incarceration. It was not within the scope of this study to determine whether these differences represented cultural biases of the instrument, actual differences between the races in levels of hypochondriasis and psychasthenia, or some idiosyncracy of either the sample or the population from which it was drawn (e.g. sentencing procedures). Differences on scale 10(social introversion) were not significant on the pretests, but they were on the posttests, with blacks scoring higher. Incarceration functioned to reduce social introversion for both races, but for whites more so than for blacks. This would seem to indicate a differential effect of prison life on the races. In general, racial differences which were present upon admission to the institution were maintained throughout incarceration, i.e. differences in levels of hypochondriasis, paranoia, psychasthenia, and schizophrenia; other differences developed during incarceration, i.e. in levels of hypomania and social introversion.

In summary, the following conclusions can be drawn from the findings of this study:

1) Length of incarceration did not affect personality, as measured by the MMPI, in the subjects.

2) Black inmates were significantly more hypochondriacal, psychasthenic and schizophrenic than white inmates, and also tended to be more paranoid, hypomanic, and socially introverted.

3) Length of incarceration differentially affects black and white inmates with regard to the personality characteristics of psychasthenia and psychopathic deviance.

4) Neither length of incarceration nor race affected the variability of personality characteristics in the sample.

5) Black and white inmates retained the basic sociopathic elements of their personalities throughout incarceration, regardless of time served.

Recommendations for Further Research

1) Further research is needed to determine how the results of this study were affected by the sampling procedure employed. While the use of a voluntary sample would still be necessary, provision of a monetary or other material incentive might increase voluntary participation to the point one could be confident the sample was truly representative of the population studied.

2) Further research should employ a larger sample drawn from the populations of different prisons. This would increase the generalizability of the results.

3) Further research should use instruments other than the MMPI. Other instruments may detect personality characteristics not measured by the MMPI, or aspects of the individual other than personality, such as self-concept, which may show change over time. In addition, other instruments may be less racially biased than the MMPI.

4) Further research is needed to compare inmates along several dimensions other than race, and to determine how these factors affect inmates' reactions to incarceration. These dimensions may include age, type of crime, history of criminal involvement, marital status, presence or absence of children, level of education and socioeconomic factors.

5) Further research should compare differences and similarities between male and female inmates in terms of how they are affected by incarceration.

6) Follow-up research should be conducted to determine which of the results of this study are maintained after release from prison, and to what degree.

APPENDIX

TEST-RETEST RELIABILITY COEFFICIENTS FOR THE MMPI BY SCALE

	Authors				
	Hathaway and McKinley (1951)*	Cottle (1950)	Holzberg and Alessi (1949)	Stone (1965)	Windle (1955)
	Normals**	Normals	Psychiatric Patients	Psychiatric Patients	College Students
1(Hs)	.80	.81	.67	.65	.73
2(D)	.77	.66	.80	.49	.84
3(Hy)	.57	.72	.87	.72	.71
4(Pd)	.71	.80	.52	.58	.84
5(Mf)	---	.91	.76	.34	---
6(Pa)	---	.56	.78	.59	.81
7(Pt)	.74	.90	.72	.58	.92
8(Sc)	---	.86	.89	.64	.82
9(Ma)	.83	.76	.59	.43	.79
0(Si)	---	---	---	.64	---

*Date of study.

**Type of subjects.

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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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Chairperson & Professor of
Counselor Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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